

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

**SUMMARY RECORD OF 1st MEETING OF THE EXPERT APPRAISAL COMMITTEE
FOR ENVIRONMENTAL APPRAISAL OF COAL MINING PROJECTS CONSTITUTED
UNDER THE EIA NOTIFICATION, 2006, HELD ON 17-18 AUGUST 2020.**

The 1st meeting of the Expert Appraisal Committee (EAC) for coal mining projects was held on 17-18 August, 2020 through video conferencing with support NIC team due to Covid-19 lockdown. The following members were present:

1.	Dr. N. P. Shukla	-	Chairman
2.	Shri Suramya Dolarray Vora, IFS (Retd)	-	Member
3.	Dr. Santosh Kumar Hampannavar	-	Member
4.	Dr. Umesh Jagannathrao Kahalekar	-	Member
5.	Shri K.B. Biswas	-	Member
6.	Dr. Nandini.N	-	Member
7.	Dr. Unmesh Patnaik	-	Member
8.	Shri Prasant Kumar Mohapatra	-	Member
9.	Shri N.S. Mondal	-	Member
10.	Professor S S Rai	-	Member
11.	Prof R.K. Giri	-	Member
12.	Shri Manoj Kr Gangeya, Director, MoEFCC	-	Member Secretary
MoEFCC			
13.	Shri Munna Kumar Shah, Scientist 'D'	-	MoEFCC

Confirmation of Minutes of 56th meeting of EAC

No comment was made from any member of the committee on the minutes of the 56th meeting of the EAC held on during 30th June, 2020, therefore the Minutes of the Meeting (MoM) of 56th meeting was confirmed in the presence of the members who were present in the 1st meeting of the EAC (coal mining).

Agenda No. 1.1

Batura Opencast Coal mining Project with production capacity of 2 MTPA in area 967.473 ha of M/s South Eastern Coalfields located in District Shahdol and Anuppur, (Madhya Pradesh) – For Environmental Clearance – reg.

[Proposal No. IA/MP/CMIN/60381/2016; F.No. J-11015/65/2016-IA.II(M)]

1.1.1 The proposal is for grant of Environmental Clearance to Batura Opencast Coal mining Project with production capacity of 2 MTPA in area 967.473 ha of M/s South Eastern Coalfields located in District Shahdol and Anuppur, (Madhya Pradesh).

1.1.2 The proposal was earlier considered by the sectoral EAC in its meeting held on 24th January, 2019, 22nd October, 2019 and 24th January, 2020, wherein the Committee desired for information in respect of the following: -

- (i) Project area mentioned in mine plan is 967.475 ha and it is mentioned that 24.60 ha for less forest land in safety zone not to be acquired. Grant Total area is reduced to 942.87 ha. Also in EIA Report and Presentation, project area is 967.473. PP shall explain the deviation and exact area of project.
- (ii) PP shall demarcate and explain the exact area and location for storage of top soil in mine plan.
- (iii) Revised Mine Plan for 3 MTPA (Peak) capacity shall be submitted by PP.
- (iv) Public Hearing with action plan with issued based fund allocation including time line in separate column shall be submitted.
- (v) Permission for extraction of ground water from Central Groundwater Authority shall be taken.
- (vi) Explore the possibility of relocating 2000 Nos of trees instead of cutting.
- (vii) R & R site is not yet decided yet. So, it is required to submit R & R Plan and report shall be submitted.
- (viii) Surface water quality of upstream and downstream of Son River shall be collected and analysed.
- (ix) Permission for diversion of Katna Nalla shall be taken from concerned regulatory authorities.
- (x) There is a Hilllock present in the area. What is plan for this.
- (xi) Justify why OB dump is being proposed at about 2.5 km distance which is likely to increase air pollution due to transportation.
- (xii) Air quality modelling for PM2.5, SOx, NOx shall also be done instead of only PM10.
- (xiii) Railway line is 20 km away from the site. Mode of transportation and its impact needs to be studied
- (xiv) Explore inpit conveyor system for coal transportation shall be explored instead of trucks/dumpers from the start or in 1 year only.

The proposal was **deferred** as it is for compliance of observations of EAC

The presentation was made by PP. After deliberation, the EAC sought more clarity on previous observations and compliance as compliance of previous observation was not complete as per the following details and deferred the proposal for compliance of its observation. The PP submitted the compliance details and the Proposal was considered in 1st EAC meeting.

1.1.3 EAC noted following details with respect to compliance of the observations.

Sr. No.	Observations of EAC	Compliance / Submission of Project Proponent
1	Project area mentioned in mine plan is 967.475 ha and it is mentioned that 24.60 ha for less forest land in safety zone not to be acquired. Grant Total area is reduced to 942.87 ha. Also in EIA Report and Presentation, project area is 967.473. PP shall explain the deviation and exact area of project.	Broadly land use for an opencast Coal Mine can be classified in two categories i.e. Area of excavation and 100 m wide strip all along within the lease boundary as mining safety zone. Purpose of mining safety zone is for establishing essential infrastructure related to the Mine, like Offices, Roads for inspection and other purposes etc. In the present case as per Mine Plan the total lease hold area of the project is 967.473 Ha, the area of excavation is 799.600 Ha and 167.873 Ha is for the purpose of Mining Safety zone. This 167.873 Ha includes 24.60 Ha of forest land. Total forest land that has been indicated in the Project Report / Mining Plan is 101.44 Ha. As Forest land diversion under FC Act 1980 is obtained to the extent of barest minimum requirement, the minimum requirement for working of mine is of 76.84 Ha for which Stage-II/ final clearance has been obtained. It was submitted that as no working is proposed in remaining 24.60 Ha of forest land falling in mining safety zone, diversion for non-forestry purpose is not required..
2	PP shall demarcate and explain the exact area and location for storage of top soil in mine plan.	Top soil shall be stacked separately in the area of safety zone (10.77 ha) to facilitate ease in reclamation.
3	Revised Mine Plan for 3 MTPA (Peak) capacity shall be submitted by PP.	The mine plan/PR is approved by SECL board for 2 MTPA. The committee is requested to consider the same for grant of EC.
4	Public Hearing with action plan with issued based fund allocation including time line in separate column shall be submitted.	Public Hearing with action plan with issued based fund allocation including time line has been prepared
5	Permission for extraction of ground water from Central Groundwater Authority shall be taken	As per CGWA directive, the CGWA NOC application will be entertained only after referral letter/EC/recommendation letter of any statutory authority. However, Application for CGWA NOC has been submitted on 03.02.2020
6	Explore the possibility of relocating 2000 Nos of trees instead of cutting	Enumeration of trees has been carried out. There are around 1800 trees with girth of 0.50 to 1.00 m. Possibility is being explored for translocation of these trees.

7	R & R site is not yet decided yet. So, it is required to submit R & R Plan and report shall be submitted.	<p>The total PAF's in the project is 1870 nos.</p> <p>Around 50 % of the PAF's have already opted for the provisions of obtaining monetary compensation @ Rs. 300000/- (Rs. Three lacs) per family in lieu of the R&R site.</p> <p>For remaining PAF's, Company is seeking for suitable land for R&R site of approx 60 ha., which is to be provided by the State Govt. Latest correspondence for finalization of available site at village Birauhli of district Shahdol has been submitted to the Collector Shahdol and the site is likely to be finalized shortly after COVID-19.</p> <p>Employment are to be provided against Tenancy land acquired and approximately 875 employments are being generated as per the applicable CIL R&R Policy 2012. The matter is already in process and 138 employments for village Khanda in Anuppur district have been acceded to. Finalizations of remaining employments are under process.</p>
8	Surface water quality of upstream and downstream of Son River shall be collected and analysed.	The water quality of Son river in upstream and downstream was collected and analysed.
9	Permission for diversion of Katna Nalla shall be taken from concerned regulatory authorities.	NOC for diversion of Katna Nalla has obtained from Water Resource Department, Shahdol. The diversion will be done at the mine progress.
10	There is a Hillock present in the area. What is plan for this.	<p>The Hillock is in the excavation area (28.00 Ha, Perimeter-Approx 2 km with about 3.02 Mcum OB/mud). There is about 1.3 MT of coal beneath the hillock.</p> <p>Hillock shall be excavated and reclaimed as per schedules of the approved mining plan.</p>
11	Justify why OB dump is being proposed at about 2.5 km distance which is likely to increase air pollution due to transportation.	This is the least distance which shall be traversed for mine working as the initial OB shall be transported beyond the coal bearing areas. As soon as the void is created for backfilling the distance shall be confined. However all the due precautions for dust suppression and control measures for air pollution shall be exercised.
12	Air quality modelling for PM2.5, SOx, NOx shall also be done instead of only PM10.	Air quality modelling of PM 2.5, SOx and NOx has been carried out.

13	<p>Railway line is 20 km away from the site. Mode of transportation and its impact needs to be studied</p> <p>Explore in-pit conveyor system for coal transportation shall be explored instead of trucks/dumpers from the start or in 1 year only.</p>	<p>The coal will be transported by Rail from Batura OC, after commissioning of the proposed Batura Railway siding.</p> <p>For stop gap arrangement in initial 2 years coal will be transported up to Burhar Railway Siding by Covered trucks.</p> <p>The impact study of PM10 and PM2.5 was carried out for transportation of coal from Batura OC to Burhar Railway siding reveals that there is no significance of incremental pollution load due to coal transport</p>
14	<p>Explore in-pit conveyor system for coal transportation shall be explored instead of trucks/dumpers from the start or in 1 year only.</p>	<p>Coal transportation in pit by belt conveyor existed as per mining plan, accordingly, establishment activities as scheduled below:</p> <ul style="list-style-type: none"> • 1st year only construction activity, • 2nd year removal of coal production starts. • 3rd year establishment of in-pit conveyor system. • Up to touching the coal floor and establishing of conveyor system coal will be transported by hired trucks/tippers.

1.1.3 During deliberations on the proposal, the Committee also noted the following: -

The proposal is for grant of Environmental Clearance to Batura Opencast Coal mining Project with production capacity of 2 MTPA in area 967.473 ha of M/s South Eastern Coalfields located in District Shahdol and Anuppur, (Madhya Pradesh).

Project proponent submitted that current proposal of EC may be considered for 2 MTPA only as per approved Mine plan/PR by SECL board.

Total forest land involved in the Project Report / Mining Plan is 101.44 Ha. However, Stage-II/ final clearance has been obtained for 76.84 ha and remaining 26.40 ha even Stage-I is not obtained while it is part of Mine lease area considered as mining safety zone. Further, it has been proposed that top soil will be stored in Safety zone.

Mine Plan has been approved by SECL Board in 9th September, 2008.

1.1.4 *The EAC, after detailed deliberation, observed that as submitted by PP, the proposal may be considered for production capacity of 2 MTPA. Further EAC desired the following details to be submitted*

- *Project proponent shall submit a clarification from Ministry's FC division about requirement of FC for forest land of 26.40 ha in safety zone*
- *Mine Closure plan should be as per Ministry of Coal latest guidelines of 2019*

- *Project proponent shall submit substantive plan for tree transplantation*
- *Project proponent shall provide year wise production and OB removal plan along with details of land reclaimed and restored. The plan shall contain the year-wise details of land disturbed on account of excavation, internal and external dumping, and land reclaimed and restored.*
- *Drainage map of the area shall be shown in topo sheet and further zero liquid discharge with water balance should be presented.*

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

Agenda No. 1.2

Siarmal Opencast coal mining project of 40 MTPA (Normative)/50 MTPA (peak) of M/s Mahanadi Coalfields Limited in mine lease area of 2475.47 ha located in District Sundargarh (Odisha) - Environmental Clearance - reg.

[IA/OR/CMIN/24164/2014; F.No. J-11015/230/2014-IA-II(M)]

1.2.1 The proposal is for environmental clearance to Siarmal Opencast coal mining project of capacity 50 MTPA of M/s Mahanadi Coalfields Ltd in mine lease area of 2290.45 ha located in Tehsil Himgir, District Sundargarh (Odisha).

1.2.2 The EAC during deliberations noted the following:

The proposal was earlier considered by the sectoral EAC in its 47th meeting held on 22nd August, 2019 wherein the Committee desired for information in respect of the following:-

The Committee observed that baseline data for air quality should have been presented in range (Min-Max), rather than average values. Also, air quality modelling and the evaluation of impacts should be based on worst case scenario. It was also observed that certain specific conditions of the ToR were not complied with, which inter-alia includes revision of mining plan (condition no.vi), carrying capacity, etc.

The EAC, after deliberations and especially in view of the project site in Ib Valley (having CEPI score 66.35) covered under the said orders of NGT, preferred not to take the proposal forward for the present, but to seek advice of the Ministry for appropriate course of action in such cases. The Committee also opined that in case, such proposals are to be considered on merits, environmental conditions and other stringent measures would have to be looked into comprehensively in complete perspective and in consultation with CPCB.

EAC noted following details with respect to compliance of the observations.

Sr. No.	Observations of EAC	Compliance / Submission of Project Proponent
1	Project site in Ib Valley (having CEPI score 66.35) covered under the said orders of NGT	The project site of Siarmal OCP does not fall in the Ib Valley - Jharsuguda Critically Polluted Cluster and is located at a distance of 26.4 KM from it. A

		letter stating the same has been received from the State Pollution Control Board Odisha dt: 10-09-2019 and submitted to Member Secretary, IA-Coal, MoEF&CC, vide our letter dt: 10-09-2019.
2	The Committee observed that baseline data for air quality should have been presented in range (Min-Max), rather than average values. Also, air quality modelling and the evaluation of impacts should be based on worst case scenario.	The baseline data for air has been generated at 10 locations for the period of November 2017 to February 2018, the details of the same is given
3	Air quality modelling and the evaluation of impacts should be based on worst case scenario	Air Quality Impact Prediction (AQIP) considering worst case scenario. Accordingly, AQIP was again carried out for incremental capacity of 50.0 Mty by AERMOD software considering maximum values at baseline stations as existing Ground Level Concentration (GLC). Additional Air Quality control measures implemented during April, 2018 to July, 2020
4	Certain specific conditions of the ToR were not complied with, which inter-alia includes revision of mining plan (condition no.vi), carrying capacity, etc.	Point wise compliance details of each specific condition was presented
4(a)	Assessment of Carrying capacity of the surrounding ecosystem around the proposed mine	A detailed Carrying Capacity of Surrounding Ecosystem of Siarmal OCP The detailed report of the same has also been submitted with Final EIA/EMP
4(b)	A final Mine Closure Plan with appropriate land use pattern akin to pre-mining conditions may be proposed. In case of any future consideration of mining of dip most coal seams deep seated, a mining plan coupled with geological plan may be proposed with detailing	In approved mining plan final land use plan has been prepared considering re-handling of external dump back to the quarry and all efforts has been taken to bring back the land use akin to pre-mining conditions. The final post closure land use as per approved Mining Plan is given
4(c)	Details of the Court cases relating to compensation and land acquisition to be presented in the EIA/EMP report.	The details of the operation of the Claim Commission set up by the Hon'ble Supreme Court of India have been given in the EIA-EMP. The Rehabilitation & Resettlement operative since 2010 under the direction & supervision of Claims Commission is successful to the satisfaction of the project affected families/ people.

4(d)	The TOR and other approvals shall be subject to the outcome of the Supreme Court of India	The Project Proponent agrees to comply any directives issued by the Hon'ble Supreme Court of India.
4(e)	Approval of the Chief Wild Life Warden and the State Government to be submitted along with the EIA/EMP report.	A letter has been obtained by the Project Proponent from Principal Chief Conservator of Forest (WL) & Chief wildlife Warden (Odisha) vide dtd. 03-06-2015 and the same has been incorporated in the EIA-EMP report.
4(f)	There shall be no external OB dumps after the mining and that the land shall be brought back up to ground level for use in agricultural purpose	As per the approved mining plan there shall be no external dump and maximum efforts has been taken to bring back the land upto ground level for use in Afforestation/ Grassing/ Agricultural purpose. This will support sustainable livelihood generation of local community.

1.2.3 The EAC during deliberation noted the following: -

The proposal is for environmental clearance to Siarmal Opencast coal mining project of capacity 50 MTPA of M/s Mahanadi Coalfields Ltd in mine lease area of 2290.45 ha located in Tehsil Hingir, District Sundargarh (Odisha).

As per communication letter from Odisha Pollution Control Board dated 10th September, 2019, project site of Siarmal OCP does not fall in the Ib Valley - Jharsuguda Critically Polluted Cluster and is located at a distance of 26.4 KM from it.

Project involves forest land of 349.705 ha for diversion for non-forestry activity. Application has been made for forest diversion of the Ministry

A letter has been obtained by the Project Proponent from Principal Chief Conservator of Forest (WL) & Chief wildlife Warden (Odisha) vide dtd. 03-06-2015 stating there is no elephant corridor in the area.

1.2.4 *The EAC after deliberation observed that the various deficiency in filling of Form #2 on PARIVESH Portal and further sought compliance on below mentioned details:*

- *Incomplete/incorrect details submitted on PARIVESH Portal shall be corrected by project proponent.*
- *Permission for Stage-I Forest Clearance for forest land of 349.705 involved in the project.*
- *Project proponent shall provide year wise production and OB removal plan along with details of land reclaimed and restored. The plan shall contain the year-wise details of land disturbed on account of excavation, internal and external dumping, and land reclaimed and restored.*
- *Mine Closure plan should be as per Ministry of Coal latest guidelines of 2019*
- *Drainage map of the area shall be shown in topo sheet and further zero liquid discharge with water balance should be presented*

- *PP shall study the impact Assessment on the proposed road route on receptors for environment parameters of PM10, PM2.5, SOX and NOX*
- *Permission of extraction of ground water from Central Ground Water Authority*
- *Clarification from District Forest Officer (DFO) regarding no presence of schedule I species in the project area and buffer zone shall be submitted. Distance from Wildlife/National Sanctuary should be substantiated by DFO.*
- *Provision of alternate grazing land shall be proposed by project proponent*
- *Quantitative Conclusion / Impact / Mitigation measures should be clearly presented of Carrying capacity study.*
- *Heavy metals shall be analyzed in surface water*

*In view of above the proposal was **deferred** for compliance of above points*

Agenda No.1.3

Amalgamated Yekona I & II OC (Phase-I) with increase in production capacity from 1.0 MTPA to 2.75 MTPA (normative) and 3.44 MTPA (peak) of M/s Western Coalfields Limited and increase in land area from 680.06 ha to 1679.39 ha located in Tehsil Warora, District Chandrapur (Maharashtra) - For Environmental Clearance – reg

[Online Proposal No. IA/MH/CMIN/135434/2019; F.No. J-11015/381/2015-IA-II (M)]

1.3.1 The proposal for grant of Environment Clearance for Amalgamated Yekona I & II OC (Phase-I) with increase in production capacity from 1.0 MTPA to 2.75 MTPA (normative) and 3.44 MTPA (peak) of M/s Western Coalfields Limited and increase in land area from 680.06 ha to 1679.39 ha located in Tehsil Warora, District Chandrapur (Maharashtra).

1.3.2 The proposal was earlier considered by the sectoral EAC in its 55th meeting held on 29th May, 2020, wherein the Committee desired for information in respect of the following

- As this project falls in CPA, the details of the Proposed Environmental Protection Mechanism as per Ministry's OM dated 31st October, 2019 has not yet been submitted. It is to be submitted
- Permission for diversion of the road (Road from Warora to Madhari) which is passing through the proposed quarry of Yekona I
- The location of the mine boundary from the HFL and the bank of the river should be studied and thereby EAC will prescribe the distance of the mine wall from HFL as well as bank of river.
- As the new linkage of the Thermal Power Plants are being worked-out/explored located at different distances, Traffic impact assessment in terms of environmental, habitation and pollution control should be presented for all proposed routes.
- Map showing movement of dumping of External OB excluding Forest land proposed to be diverted in due course of time should be provided.

- Contradictory statement in EIA Report and Response to RO regarding installation of Coal Handling Plant should be avoided and firmed up plan should be presented before this committee.
- HEMM is proposed by PP to be maintained by outsourcing agency, however, the overall responsibility of all the commitment made will rest with the PP.
- In-pit conveyor belt till CHP should be installed and timeline should be given accordingly.
- PH mentions that Overburden is 100 meters away from yekona village, which may cause pollution around the village. Also in the event of an accident which may fall of OB into the river, water may enter into village causing damage. Necessary mitigation measures should be proposed by PP and presented before the committee.
- Road between Naidev village to Warora appears to be causing dust emission due to movement of coal trucks. Plan for upgradation of road up to the specified standard and widening of road along with the environmental mitigation measures should be submitted to the committee.

The proposal was **deferred** for want of above compliance.

1.3.3 EAC noted following details with respect to compliance of the observations.

Sr. No.	Observations of EAC	Compliance / Submission of Project Proponent
1	As this project falls in CPA, the details of the Proposed Environmental Protection Mechanism as per Ministry's OM dated 31 st October, 2019 has not yet been submitted. It is to be submitted	<p>The CEPI zone in Chandrapur covers industrial clusters/ area of MIDC Chandrapur, Tadali, Ghughus, Ballapur. All the OMs w.r.t. critically polluted areas of Chandrapur specifically mentions Industrial cluster/areas of Chandrapur (MIDC Chandrapur, Tadali, Ghughus, Ballarpur). A copy of order issued by MoEF&CC in 2016 was shown to highlight the polluted areas where CPA is applicable. The entire Chandrapur district is not within the CEPI. The subject mine is in Warora Tehsil, which is not within the CPA.</p> <p>The project area is located 33 kms from nearest MIDC Tadali</p> <p>The Project area is located 35 kms from next nearest MIDC Ghugus</p> <p>MIDC - Chandrapur and Ballarpur are further away.</p>
2	Permission for diversion of the road (Road from Warora to Madhari) which is passing through the proposed quarry of Yekona I	<ul style="list-style-type: none"> • Existing length of PWD road from Warora to Madhari is 3.2 kms which falls in the quarry area. • The diverted road length will be 5.8 kms along the mine boundary. • For diversion of PWD road from Warora to Madhari provision of Rs. 8.90 crore has been made in the project. • At present the land required for diversion is under acquisition.

		<ul style="list-style-type: none"> Any diversion of road is carried out with due permission from the concerned State Government Authorities. <p>In the project, the road from Prajima-9 to Yekona of length 750m (approx.) has been already been carried out only with due permission from state Government</p>
3	The location of the mine boundary from the HFL and the bank of the river should be studied and thereby EAC will prescribe the distance of the mine wall from HFL as well as bank of river.	<p>As per the existing EC (17.10.2006) & DGMS permission (23-10-2015) mining at Yekona – II is being carried out at a safe distance from the river flowing adjacent to the lease boundary. As per the EC, and as per DGMS statute, CMR 2017 an embankment has been constructed along the boundary to prevent mine inundation.</p> <ul style="list-style-type: none"> The permission issued by DGMS covers in detail the design aspects of embankment. It has been mentioned in the permission that the height of the embankment shall be at-least 3m above the HFL i.e. 201 m. In actual, the height has been planned 6m above HFL. Further, it has also been mentioned that the width of the embankment at the top shall be atleast 30 m. From the above considering Mine Statues, EC conditions, the embankment has been constructed keeping a distance of 80 meters from river. This will not have any adverse impact neither on the natural course of the river/stream along the embankment, on the downstream regions of the river nor on the river ecosystem.
4	As the new linkage of the Thermal Power Plants are being worked-out/explored located at different distances, Traffic impact assessment in terms of environmental, habitation and pollution control should be presented for all proposed routes.	<ul style="list-style-type: none"> Mine under consideration has just started operation with only 1 quarry that is Yekona-II OC. The production achieved in last year (2019-20) was only 0.35 MTPA against a EC capacity of 0.60 MTPA. <p>Coal transportation in amalgamated Yekona I & II OC project is proposed by 3 below options:</p> <ol style="list-style-type: none"> Railway Siding with the ML Area: Approved in Project Report/Mining Plan with Rs 40 crore capital investment. Existing Route: Coal is transported temporarily by the utilizing the WCL road, state highway and industrial road of MIDC.

		<p>Maximum coal to be transported through this route will be upto the existing capacity i.e. 1.0 Mt.</p> <p>3. Alternate Route: Utilizing WCL diverted road and MIDC road keeping at least 1 kilometre of distance from the villages</p> <p>The air quality impact prediction study over the nearby habitations Wanoja village and Naydev village have been conducted for the above tentative route and incremental impact w.r.t. the baseline data generated from Jan, 2020 to April, 2020</p> <p>Maximum total incremental impact could be seen on the Naydev village 96.72 µg/m³. Various measures such as green belt along the mine periphery for 8.0 kms with 30-meter width has been proposed.</p> <p>Traffic Impact Assessment of the proposed road route has been conducted.</p>
5	Map showing movement of dumping of External OB excluding Forest land proposed to be diverted in due course of time should be provided.	<p>The external dump located in the north has been parted in two parts till the forestry clearance is obtaining. The green patch shown in the plan is 0.62 ha of forest land.</p> <p>Mining Plan by excluding the Forest land 0.62 Ha and adjacent non-forest land 21.31Ha (for maintaining mine geometry) has been approved as Phase – I. The project will have peak capacity of 3.44 MTPA within total area of 1679.39 ha in Phase-I excluding 0.62 ha of forest land and 21.31 ha of adjacent non-forest land</p>
6	Contradictory statement in EIA Report and Response to RO regarding installation of Coal Handling Plant should be avoided and firmed up plan should be presented before this committee.	<p>At present the coal is being mined through the eco-friendly surface miner. At CHP coal is being crushed to the size of -100 mm. But in Surface miner, -100 mm size of coal is produced. Thus, it does not require further crushing and reduces the pollution to be generated from crushing and handling at CHP. In response to RO, the same thing has been mentioned. The CHP is proposed to be installed when the coal from the Yekona-I OC starts production. The capacity of the mine increases to normative capacity of 2.75 MTPA and peak 3.44 MTPA</p>
7	HEMM is proposed by PP to be maintained by outsourcing agency, however, the overall responsibility	PP is committed for the overall responsibility of Environment protection. All mitigation measures as mentioned in the EIA-EMP report, Environment

	of all the commitment made will rest with the PP.	Clearance letter, CTO, CTE will be complied as applicable.
8	In-pit conveyor belt till CHP should be installed and timeline should be given accordingly.	<p>Installation of conveyor from pit to surface is not feasible techno-economically due to two reasons</p> <p>Production is proposed from multi-sections (two sections) of composite seam. Moreover, property of Yekona-I is highly faulted. Due to multi-section working and numerous faults it is not possible to install belt at floor of the bottom section due to its undulations. Belt is installed in mines where floor is having even floor and gradient mild. In amalgamated Yekona I & II OC the gradient of the seam is upto 1 in 4.8. Steep which is also not favorable for installation of belt conveyor.</p> <p>Due to multi-seam working, coal loading and transport will be from two different horizons and so belt conveyor for each horizon has to be installed which needs to be frequently shifted with the advancement of benches. So, there will not be any smooth and continuous operation of coal outflow</p> <p>Simultaneous backfilling is very essential to minimize the land degradation due to OB dumping & maximizing the reclamation of decoaled area</p> <p>If the dumping is done externally instead of internal backfilling, huge fresh land area will be degraded due to external dumping</p>
9	PH mentions that Overburden is 100 meters away from yekona village, which may cause pollution around the village. Also in the event of an accident which may fall of OB into the river, water may enter into village causing damage. Necessary mitigation measures should be proposed by PP and presented before the committee.	<p>Overburden is 100 away from Yekona village which is as per stipulation of CMR, 2017, Regulation no. 108(5) (Spoil banks and Dumps).</p> <p>Biological reclamation over the OB dump has been proposed. A green belt of 30 meter has been proposed between the overburden dump and the Yekona Village.</p> <p>Overburden is planned in such a way that total dump height doesn't increase more than 90 m from ground level. It will consist of 3 benches of 30 meter height each</p> <p>The haul roads having gradient of 1 in 16 so that roads are self-draining and water collected from dump area is collected at the bottom of the dump and finally drains into River. So, there is no chance of dump failure and fall of OB either to Yekona</p>

		village or River.
10	Road between Naidev village to Warora appears to be causing dust emission due to movement of coal trucks. Plan for upgradation of road up to the specified standard and widening of road along with the environmental mitigation measures should be submitted to the committee.	The coal is being transported by the thermal power plants from the mine. The present route used by thermal power plants is MIDC (Maharashtra Industrial Development Corporation) road. The widening of road if required will have to be done by MIDC or the thermal power plants located within the MIDC premises

The proposal for grant of Environment Clearance for Amalgamated Yekona I & II OC (Phase-I) with increase in production capacity from 1.0 MTPA to 2.75 MTPA (normative) and 3.44 MTPA (peak) of M/s Western Coalfields Limited and increase in land area from 680.06 ha to 1679.39 ha located in Tehsil Warora, District Chandrapur (Maharashtra).

Project proponent has only presented the impact assessment of PM10 on receptors along the transportation route.

Project proponent has already constructed embankment along the river Wardha. It is observed that some coal mines are situated along the river banks and embankment is to be constructed for protection of coal mine. Such embankment may obstruct the river flood flow. In such case, whether the separate permission of state government is required, is the issue. This matter may please be referred to policy making committee. After receipt of decision from this committee, the thing can be incorporated in the future minutes

Since it is an operational mine, PP must have CGWA permission for extraction of ground water.

It is observed that some coal mines are located near the river banks. Hence such consequences and remedial measures thereof shall be considered in EIA.

The suggestion to consider annual average value for EC, may be referred to Policy Making Committee, as it is applicable for all. After receipt of the decision from policy making committee, the same can be incorporated in future minutes. Meanwhile, the current practice may be continued.

1.3.4 The EAC after deliberation observed project lies in Chandrapur Area hence as per Ministry' OM dated 31st October, 2019 will be stipulated the conditions accordingly. Further, Project proponent cannot have excuse that since Thermal Power Plants (TPPs) is transporting the coal from mine to TPP so responsibility of widening the road lies with TPPs or MIDC. Also, this coal mine is located near the river bank. The embankment is constructed to protect the coal mine from inundation during flood situation. Due to such embankment, the natural river course may be obstructed and water level is likely to increase on upstream side due to backwater, which may result in severity of flooding condition. Based on submission of Project proponent, EAC desires further clarity and response on the following observation:

- *PP shall study the impact Assessment on the proposed road route on receptors for environment parameters of as per Ambient Air Quality standards.*
- *PP shall provide the deliberations with Power Plants, PWD or MIDC for widening of road or similar initiatives of pipe conveyor with Mahagenco to reduce the impact on road and nearby habitations.*
- *Water Balance diagram with zero liquid discharge considering no untreated mine water discharged in river*
- *Permission of extraction of ground water from Central Ground Water Authority.*
- *Study the impact of embankment along river and propose mitigation measures bearing in mind that no villages shall be flooded due to embankment.*
- *Recommendation of Slope Stability Study of OB dump and Year wise dumping of external and internal OB, along with backfilling and reclamation shall be presented.*

*Keeping in view above points the proposal was **deferred** for compliance of the above points*

Agenda No.1.4

Cluster V Coal Mining Project of production capacity of 6.311 MTPA in total mine lease area of 1957.08 ha of ha) of M/s Bharat Coking Coal Ltd located in Jharia Coalfields in District Dhanbad (Jharkhand) - For Amendment in Environment Clearance

[IA/JH/CMIN/163820/2020; F.No. J-11015/01/2011-IA. II(M)]

1.4.1 The proposal is for amendment in Environment Clearance (EC) for Cluster V Coal Mining Project of 6.311 MTPA capacity (Peak) in mine lease area of 1957.08 ha of M/s Bharat Coking Coal Limited located in Jharia Coalfields, District Dhanbad (Jharkhand).

1.4.2 The EAC during deliberations noted the following:

The proposal is for amendment in Environment Clearance (EC) for Cluster V Coal Mining Project of 6.311 MTPA capacity (Peak) in mine lease area of 1957.08 ha of M/s Bharat Coking Coal Limited located in Jharia Coalfields, District Dhanbad (Jharkhand).

Earlier, Environment Clearance to the project was granted by Ministry under EIA Notification, 2006 vide its letter No J-11015/01/2011-IA.II(M) dated 11th February, 2013 for 6.311 MTPA (Peak) in mine lease area of 1957.08 ha.

Amendment in EC was granted vide Ministry's letter No J-11015/01/2011-IA.II(M) dated 30th May, 2018 to facilitate higher production of fiery coal in Sendra Bansjora Colliery enabling swifter fire dealing

The amendment was for increase in capacity of individual mines namely, Sendra Bansjora OC (from 0.975 to 2.34 MTPA) and Kankanee OC (0.624 to 1.19 MTPA), without any change in combined peak production capacity of 6.311 MTPA in a total mine lease area of 1957.08 ha of the Cluster.

PP has requested for further amendment in EC for speedier operation at Nichitpur OCP and to enable the following:

- To facilitate complete extraction of Coal up to the Bottom Seam,
- The amendment will make available larger space for keeping OB, thereby reducing the requirement of re-handling of OB enabling better and speedier reclamation works.
- The de-coaled areas will provide space for storage of OB extracted for fiery coal excavation within the cluster to implement the Master Plan approved by Govt. of India.

Total mining lease area as per approved mining plans/feasibility reports is 1957.08 Ha. Mining Plan (Including Progressive Mine Closure Plan) for Nichitpur Colliery, for which the enhancement in peak capacity without changing the Cluster peak EC capacity has been applied for, has been approved by the Board of Bharat Coking Coal Limited on 29.05.2020

Existing Production Scenario and Proposed Production Scenario (with Normative (N) and Peak (P) capacities.

Sl. No.	Name of the Mine	Leasehold Area (Ha)	EC Amendment dated 30.05.2018 (Existing)			Amendment sought			
			Production Capacity (N) (MTPA)	Production Capacity (P) (MTPA)	Mine Life (Yrs)	Proposed Amendment	Production Capacity (N) (MTPA)	Production Capacity (P) (MTPA)	Balance Mine Life (Yrs)
1	Nichitpur OC Mine	150	0.6	0.78	10	Increase in production	1.38	1.794	5
2	Tetulmari (OCP & UG Section)	317	0.795	1.033	>30	No Change	0.795	1.033	>30
3	Mudidih (OCP & UG Section)	378.05	1.553	2.019	>30	No Change	1.553	2.019	>30
4	Sendra Bansjora OC Mine	249.63	1.8	2.34	16	No Change	1.8	2.34	14
5	Kankanee OC Mine	258.12	0.92	1.19	7	No Change	0.92	1.19	6
6	Bansdeopur (OCP & UG Section)	104.72	0.676	0.879	>30	No Change	0.676	0.879	>30

7	Loyabad UG Section (closed for coal production)	499.56	0	0	--	No Change	0	-
	Cluster	1957.08	4.854	6.311*			4.854	6.311*

1.4.3 *The Committee after detailed deliberation and considering the situation in Jharia Coalfields due to persistent mine fire and benefits of reducing rehandling of OB, recommended the proposal for the amendment in Environment Clearance as proposed in para 1.4.2 above without any change in overall production capacity and mine lease area to expansion of Cluster V Coal Mining Project of production capacity of 6.311 MTPA in total mine lease area of 1957.08 ha of ha) of M/s Bharat Coking Coal Ltd located in Jharia Coalfields in District Dhanbad (Jharkhand). In addition, all the conditions of EC dated 11th February, 2013 shall remain also be applicable along with the following conditions mentioned below: -*

- (i) *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.*
- (ii) *Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.*
- (iii) *Persons of nearby villages shall be given training on livelihood and skill development to make them employable.*
- (iv) *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.*
- (v) *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.*
- (vi) *Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.*
- (vii) *A third party assessment of EC compliance shall be undertaken once in three years through reputed Government Institutes or any other expert agency identified by the Ministry.*
- (viii) *Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles*
- (ix) *In-active OB dump shall not be kept barren/open. They should be immediately reclaimed and re-graded to improve the land form and covered by temporary grass etc. for better land use post mine closure*
- (x) *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.*
- (xi) *The Project Proponent shall comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014*

in the matter of Common Cause versus Union of India and Ors. State Government shall ensure that the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department in strict compliance of judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.

- (xii) Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of antsnake venom including all other paramedical safeguards may be ensured before initiating the mining activities.*
- (xiii) Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".*
- (xiv) The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.*
- (xv) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.*
- (xvi) Hon'ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs Union of India & Ors vide its judgement dated 8th January, 2020 has directed the Union of India to impose a condition in the mining lease and a similar condition in the environmental clearance and the mining plan to the effect that the mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. Compliance of this condition after the mining activity is over at the cost of the mining lease holders/Project Proponent". The implementation report of the above said condition shall be sent to the Regional Office of the MoEFCC.*

Agenda No. 1.5

Urimari Expansion OCP from 1.3 MTPA to 2 MTPA normative and 2.5 MTPA peak in an ML area of 243.09 ha of M/s Central Coalfields Ltd. Located in District Hazaribagh (Jharkhand) - For Amendment/Extension Environment Clearance

[Online Proposal No. IA/JH/CMIN/162909/2020; F.No. J-11015/369/2007-IA.II (M)]

1.5.1 The proposal is for amendment/extension in validity of Environment Clearance (EC) dated 16th February, 2011 of Urimari Expansion Project of 2.0/2.5 MTPA (Normative / Peak) capacity in an area of 243.09 Ha of M/s Central Coalfields Limited located in village Urimari, District Hazaribagh (Jharkhand).

1.5.2 The EAC during deliberation noted the following:

The proposal is for amendment/extension in validity of Environment Clearance (EC) dated 16th February, 2011 of Urimari Expansion Project of 2.0/2.5 MTPA (Normative / Peak) capacity in an area of 243.09 Ha of M/s Central Coalfields Limited located in village Urimari, District Hazaribagh (Jharkhand).

Earlier, the Environment Clearance was granted by the Ministry under EIA Notification, 2006 vide letter No J-11015/369/2007-IA.II(M) dated 16.02.2011 to Urimari Expansion Project of 2.0/2.5 MTPA (Normative / Peak) capacity in an area of 243.09 Ha of M/s Central Coalfields Limited located in village Urimari, District Hazaribagh (Jharkhand).

The EC granted on 16th February, 2011 for Urimari Expansion is valid for 10 years (life of mine mentioned in EC letter) i.e. upto 16th February, 2021. The coal production operation of the mine is in place.

PP has requested for extension in mine life and submitted the following :

- In order to exploit the balance reserves, Mining plan/ Mine closure plan has been revised for balance mineable reserves of 5.62 Mte.
- Application for extension in validity of EC in Form-VI has been submitted to MoEF&CC as per EIA Notification, 2006 on 10.07.2020.
- This presentation regarding the extension of validity of EC in respect of Urimari Expansion OCP (2.00/2.50 MTPA) for further 2 years is put-up before EAC (Coal), MoEF&CC for kind approval.
- Further, the status of forest clearance is given below –

SN	Particular	Area (in Ha)	Status
1	Notified Forest	49.97	Stage II FC obtained vide no: 8-113/90-FC Dated: 18.01.1994, Stage I renewed on 08.11.2010
2		34.64	Stage I issued vide no: 8-68/2004-FC on 23.01.2020
3		91.04 (Part)	Stage II FC obtained vide no: 8-68/2004-FC Dated: 17.07.2008.
NPV of Rs 43.25 Crores for forestland including GM-JJ for total acquired land of Urimari OCP has already been paid.			

Mining activity is being carried over without the permission of Central Ground Water Authority since 2011.

As per Ministry's notification dated 29th April, 2015 regarding validity of environmental clearance and its extension, it states as below:-

(i) The "Validity of Environmental Clearance" is meant the period from which a prior environmental clearance is granted by the regulatory authority, or may be presumed by the applicant to have been granted under sub paragraph (iv) of paragraph 7 above, to the start of production operations by the project or activity, or completion of all construction operations in case of construction projects (item 8 of the Schedule), to which the application for prior environmental clearance refers. The prior environmental clearance granted for a project or activity shall be valid for a period of ten years in the case of River Valley projects (item 1(c) of the Schedule), project life as estimated by Expert Appraisal Committee or State Level Expert Appraisal Committee or District Level Expert Appraisal Committee subject to a maximum of thirty years for mining projects and seven years in the case of all other projects and activities.

(ii) In the case of Area Development projects and Townships [item 8(b)], the validity period shall be limited only to such activities as may be the responsibility of the applicant as a developer:

Provided further that the regulatory authority may also consult the Expert Appraisal Committee or State Level Expert Appraisal Committee or District Level Expert Appraisal Committee, as the case may be, for grant of such extension.

(iii) Where the application for extension under sub-paragraph (ii) has been filed-

(a) within one month after the validity period of EC, such cases shall be referred to concerned Expert Appraisal Committee (EAC) or State Level Expert Appraisal Committee (SEAC) or District Level Expert Appraisal Committee and based on their recommendations, the delay shall be condoned at the level of the Joint Secretary in the Ministry of Environment, Forest and Climate Change or Member Secretary, SEIAA, as the case may be;

(b) more than one month after the validity period of EC but less than three months after such validity period, then, based on the recommendations of the EAC or the SEAC or the DEAC, the delay shall be condoned with the approval of the Minister in charge of Environment, Forest and Climate Change or Chairman, as the case may be :

Provided that no condonation for delay shall be granted for any application for extension filed 90 days after the validity period of EC."

1.5.3 *The EAC, after deliberation observed that since the project proponent has applied within time limit of said notification, no condonation of delay is desired. For extension of EC, EAC has desired the following as mentioned below:*

- *Certified Compliance Report of EC conditions from Ministry's Regional Office, Ranchi*
- *Permission/No Objection Certificate of Central Ground Water Authority for extraction of ground water from mining activity*
- *Mine Plan and Mine Closure Plan (as per latest guidelines of Ministry of Coal)*
- *Permission of diversion of nallah (if any)*

- CAAQMS should be installed by project proponent as early as possible.

The proposal was *deferred* on above observations

Agenda No. 1.6

Cluster 11 (Group of mines) with combined production capacity of 8.20 MTPA of M/s Eastern Coalfields Limited in ML area of 4218 ha in Raniganj Coalfields, District Burdwan (West Bengal) - For Amendment in Environment Clearance

[Online Proposal No. IA/WB/CMIN/156905/2020; F.No. J-11015/245/2011-IA.II(M)]

1.16.1 The proposal is for amendment in EC of Cluster No. 11 (Group of mines of ECL in Raniganj Coalfield) Project of 8.20 MTPA capacity in mine lease area of 4218 ha of M/s Eastern Coalfields Limited located in Kenda & Bankola Area, Haripur, Paschim Bardhaman, District Burdwan (West Bengal).

1.16.2 The EAC during deliberations noted the following:

The proposal is for amendment in EC of Cluster No. 11 (Group of mines of ECL in Raniganj Coalfield) Project of 8.20 MTPA capacity in mine lease area of 4218 ha of M/s Eastern Coalfields Limited located in Kenda & Bankola Area, Haripur, Paschim Bardhaman, District Burdwan (West Bengal).

Earlier, the Environment clearance to the Cluster No. 11 was granted by Ministry under EIA Notification, 2006 vide Ministry's letter No J – 11015/245/2011 – IA – II (M) dated 21.07.2015 and EC amended on 29th November, 2016 for revised production capacity of 8.20 MTPA in mine lease area of 4218.00 Ha. Further, amendment in EC was granted vide Ministry's letter dated 10th September, 2018

Now again PP has requested for further amendment for changing production capacity and mining methodology in some of constituents of cluster mines. The proposed amendment is being sought for changes in capacities of constituent mines of the cluster without changing overall production capacity (8.20 MTPA) and leasehold area (4218.00 Ha).

Mining Plan including Mine Closure Plan approved on 30.01.2016 and subsequently supplementary note to mining plan is approved on 21.05.2020. Mine Closure Plan of all the mines within the Cluster-11 have been revised based on the latest WPI and the guideline issued by Ministry of Coal vide OM no. 34011/28/2019-CPAM dated 16.12.2019.

The proposed amendment is tabulated below:

Sl.No.	As per Existing EC dated 29.11.2016				
	Name of the Mine	UG/ OC	Lease Area (Ha)	Present EC Capacity (MTY)	Mine Life (Yr)
1	Krishnanagar	UG	772	0.05	>25

#	Haripur Group of Mines	UG + OC		2.30	
2	Haripur	UG + OC	853	0.75	15
3	Chora Block Incline	UG		0.10	>25
4	Chora 7, 9 & 10	UG		0.15	
5	Bonbahal OC Patch	OC		0.50	3
6	Shankarpur / CL Jambad OC Patch/mine	OC		0.80	6
7	New Kenda Group of Mines	UG + OC		742	2.00
A	New Kenda	UG	0.05		>25
B	W Kenda OC Patch	OC	0.75		6
C	New Kenda OC Mine	OC	1.20		12
8	Bahula Group of Mines		676	0.45	>25
A	Lower Kenda	UG		0.15	>25
B	Bahula	UG		0.25	>25
C	CL Jambad	UG		0.05	>25
9	Siduli	UG+OC	335	1.20	>25
10	Khandra	UG	388	0.20	>25
11	Shankarpur Project		452	2.00	
A	Shankarpur	UG		1.16	>25
B	Shankarpur OC Patch/mine	OC		2.00	4
Total			4218.0	8.20	

Sl. No.	Proposed changes in amendment proposal					Remarks
	Name of the Mine	UG/OC	Lease Area (Ha)	Proposed EC Capacity (MTY)	Mine Life (Yr)	
1	Krishnanagar	OC	772	0.50	7	OC mining proposed
2	Haripur Group of Mines	UG + OC		1.42		
A	Haripur	UG + OC	853	0.00	-	OC proposal dropped
B	Chora Block Incline	UG		0.10	>25	No change
C	Chora 7, 9 & 10	UG		0.21	>25	UG Capacity enhancement
D	Bonbahal OC Patch	OC		0.31	3	OC capacity reduced
E	Shankarpur OC Patch	OC		0.80	6	No change
3	New Kenda Group of Mines	UG + OC		742	2.00	
A	New Kenda	UG+OC	0.05		5	Life reduced

B	W Kenda OC Patch			0.75	12	Life enhanced
C	New Kenda OC Mine			1.20	>20	Life enhanced
4	Bahula Group of Mines			1.36		
A	Lower Kenda	UG	676	0.15	>25	No change
B	Bahula	UG		0.25	>25	No change
C	CL Jambad	UG+OC		0.96	>25	Proposal for OC Patch
5	Siduli	UG+OC		335	2.32	>25
6	Khandra	UG	388	0.10	>25	Capacity reduced
7	Shankarpur Project			0.50		
A	Shankarpur	UG	452	0.50	>25	Capacity reduced
B	Shankarpur OC Patch/mine	OC		-	-	Proposal dropped
Total			4218.0	8.20		

The land usage pattern of the project is as follows:

Present Land Use

#	Type Land Use	Present Mining Land Use (Ha)	Percentage (%)
1	Agricultural/Fallow	2428.0	57.56
2	Danga/Waste land	285.0	6.76
3	Plantation/Vegetation	631.0	14.96
4	Surface water bodies	120.0	2.84
5	Rural/Urban Settlements	394.0	9.34
6	Colliery Infrastructure including Road & Railway	50.0	1.19
7	Subsidence	0.0	0.0
8	Quarry	97.0	2.30
9	OB Dump	213.0	5.05
	Total	4218.0	100.0

Post Mining Landuse

S No.	Description	Land-use (Ha)				Total
		Plantation	Water Body	Public use	Undisturbed	
1	Agricultural/Fallow	-	-	-	1933.32	1933.32

2	Danga/Waste land	-	-	-	131.15	131.15
3	Plantation/Vegetation	29.85	-	-	631.00	660.85
4	Surface water bodies	-	-	-	120.0	120.0
5	Rural/Urban Settlements	-	-	-	334.15	334.15
6	Colliery Infrastructure including Road & Railway	10.0	-	-	70.0	80.0
7	Subsidence	88.0			-	88.0
	Quarry	610.27	-	-	-	610.27
8	OB Dump	260.26	-	-	-	260.26
	Total	998.38			3219.62	4218.0

Quarry Area (EC vs Proposed Amendment)

Sl no.	Name of OC Mine	Within Leasehold of Mine	Existing EC (Ha)	Proposed Amendment (Ha)	Difference	Remarks
1	Bonbahal OC	Chora Block Incline UG	19.38	17.38	(-) 2.0	The quarry area is within the mine lease boundary; there is no increase in mine lease area and overall area of the cluster
2	Shankarpur / C L Jambad OC		86.0	156.13	70.13	
3	New Kenda OC	New Kenda UG	169.50	169.50	0.0	
4	West Kenda OC		61.64	86.54	24.90	
5	Shankarpur OC	Shankarpur UG	110.48	0.0	(-) 110.48	
6	Haripur OC	Haripur UG	108.0	0.0	(-)108	
7	Siduli OC	Siduli UG	117.0	88.0	(-) 29	
8	Krishnanagar OC	Krishnanagar UG	0.0	63.05	63.05	
9	CL Jambad OC	CL Jambad UG	0.0	29.67	29.67	
Total			672.0*	610.27*	(-) 61.73	

*including 52.0 Ha area already exhausted and backfilled

External OB Dump Area (EC vs Proposed Amendment)

#	Name of OC Mine	Within Leasehold of Mine	Existing EC (Ha)	Proposed Amendment (Ha)	Difference	Remarks
1	Bonbahal OC	Chora Block Incline UG	13.28	0.0	(-) 13.28	The quarry area is within the mine lease boundary; there is no increase
2	Shankarpur / C L Jambad OC		28.32	28.32	0.0	

3	New Kenda OC	New Kenda UG	0.0	0.0	0.0	in mine lease area and overall area of the cluster	
4	West Kenda OC		28.40	60.39	31.99		
5	Shankarpur OC	Shankarpur UG	0.0	0.0	0.0		
6	Haripur OC	Haripur UG	30.0	0.0	(-) 30.0		
7	Siduli OC	Siduli UG	0.0	48.0	48.0		
8	Krishnanagar OC	Krishnanagar UG	0.0	24.80	24.80		
9	CL Jambad OC	CL Jambad UG	0.0	43.75	43.75		
Total			100.0*	205.26*	105.26		

*excluding 55.0 Ha area already under external OB dump

Ambient Air Quality Impact Assessment has been conducted by project proponent for the changes proposed wherein predicted resultant value has been found exceeding the prescribed standards for Raniganj Coalfields (GSR 742 (E) dated 25.09.2000) at R N Colony Dispensary near Chinchuria Village w.r.t. PM₁₀. Accordingly, additional mitigation measures like increasing the frequency of water sprinkling by mobile sprinklers along the roads, development of greenbelt in the colonies and avenue plantation in and around coal transport roads as per the proposed plantation programme along with the mitigation measures already proposed in the EIA & EMP will be adopted to bring down the concentration level within the prescribed limits.

It was noted that land degradation due to excavation as proposed will decrease by 61.73 Ha due to suspension of production proposal in few OC Patches. Overall land due to external dumping will increase by 105.26 Ha. Subsidence in Siduli UG will increase by additional 31.0 Ha. The backfilled areas, external OB dump area and subsided land will be planted upon with mixed species of plants after appropriate technical reclamation

1.6.3 *The EAC, after deliberations **recommended** the proposed amendment in EC as proposed in above para to Cluster 11 (Group of mines) with combined production capacity of 8.20 MTPA of M/s Eastern Coalfields Limited in ML area of 4218 ha in Raniganj Coalfields, District Burdwan (West Bengal), 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:-*

- (i) *Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table. The intersecting ground water table can only be commence after conducting detailed hydrogeological study and necessary permission from the CGWA. The Report on six monthly basis on changes in Ground water level and quality shall be submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.*
- (ii) *No untreated mine water discharge shall be done in nearby Singaran and Tumni Nala*

- (iii) PP shall study the subsidence for the underground mine for enhanced area from recognised Institutes/Agencies and submit it to Ministry's Regional Office in six months from the date of issue of letter. Further the recommendation in the study report shall implemented strictly.
- (iv) Third party monitoring (by NEERI/CIMFR/IIT) for air quality shall be carried out at identified locations, both ambient and the process area, to arrive at impact of the proposed changes. The report shall be submitted to Ministry's Regional Office in six months.
- (v) Top soil should be stored separately at marked area
- (vi) Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles
- (vii) In-active OB dump shall not be kept barren/open. They should be immediately reclaimed and re-graded to improve the land form and covered by temporary grass etc. for better land use post mining on closure.
- (viii) PP shall explore to use nearest coal mine in the cluster for backfilling instead of creating new external dump.
- (ix) Peripheral tree plantation around the affected villages like Chinchuria, Chakdola, Chowkidanga, Kenda shall be done within two year.
- (x) Project proponent to plant 100,000 nos. of native trees with broad leaves along the transportation route in three years to prevent the effect of air pollution. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer.
- (xi) Fixed Automatic sprinkler system shall be installed in Crusher area, Haul Road. Further adequate pollution control mechanism shall be adopted in mobile crusher system
- (xii) Hon'ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs Union of India & Ors vide its judgement dated 8th January, 2020 has directed the Union of India to impose a condition in the mining lease and a similar condition in the environmental clearance and the mining plan to the effect that the mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. Compliance of this condition after the mining activity is over at the cost of the mining lease holders/Project Proponent". The implementation report of the above said condition shall be sent to the Regional Office of the MoEFCC.

Agenda No. 1.7

Coal Washery of 10 MTPA (2x5 MTPA) capacity in 20.23 ha area of M/s Orissa Stevedores Limited located in Village Jarapada, Tehsil Angul, District Angul (Odisha) - For Terms of Reference – reg.

[IA/OR/CMIN/135400/2020; F.No J-11015/1/2020-IA-II(M)]

1.7.1 The proposal is for Terms of Reference (ToR) for Coal Washery Project of 10 MTPA capacity in 20.23 ha area of M/s Orissa Stevedores Limited located in Village Jarapada, Tehsil Angul District Angul (Odisha).

1.7.2 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 area is covered under Survey of India Topo Sheet No 73 D/13 and is bounded by the geographical coordinates ranging from 20°53'49.34"N longitudes and 84°52'44.17"E latitude
- (ii) Coal linkages of the project will be done by tender process before operation of coal washery with end users of washed coal
- (iii) Project does not fall in the Critically Polluted Area(CPA), where the MoEF&CC's vide its OM dated 13th January, 2010 has imposed moratorium on grant of environment clearance.
- (iv) Employment generation 174 Person will be provided from the project.
- (v) The project is reported to be beneficial in terms of employment generation, revenue generation and overall development of nearby villages
- (vi) Water requirement is 1980 KLD. Source will be natural water reservoir is project site and rain water. The water reservoir of capacity 5000 cum is exist at the project site Rain water will be stored in this reservoir and this water will be used for coal washing process. Permission/application of using Pond/surface water from concerned regulatory body will be obtained before commissioning of unit as per the norms/guidelines
- (vii) No forest land is involved.
- (viii) There is no wildlife sanctuary, National Park with 10 km of project site.
- (ix) Power requirement is 8 MW will be source from State Electricity Boards.
- (x) Raw Coal will be source from 1) Hingula Mine 2) Chheendipada coal mines 3) Global coal and Mining Pvt. Ltd 4) Talcher Colliery underground mines and other coal mines which are located within 50 km from project site. initially 1000 trucks per day for raw coal & reject coal and washed coal for transportation afterwards railway siding will be developed by OSL.
- (xi) An agreement will be signed by Tender process with end uses of washed coal. Coal reject will be sold to nearby Steel Plant, Cement Plant & other unit.
- (xii) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been reported with 10 km boundary of the project.
- (xiii) The ground water level has been reported to be varying between 1.56 to 11.85 m bgl during pre-monsoon and between 0.7m to 9.28 m bgl during post-monsoon.
- (xiv) Application for obtaining the approval of the Central Ground Water Authority will be obtained
- (xv) NO court cases, violation cases are pending against the project of PP.
- (xvi) Total Afforestation plan shall be implemented covering of mining. This will include Green belt of 16.5 Acre (6.67 ha) with Density of tree plantation: more than 10,000 nos of plants
- (xvii) Total cost of the Project is Rs 79.44 crore. However, 1.58 crore will be spending in various activities towards CER (2 % of project cost) as per the CER Notification dated 1.05.2018 issued by MOEF&CC Environment cost: Capital cost is Rs 752 lakh and recurring cost is 89.32 lakh
- (xviii) Whether the consultant has been accredited by the QCI and NABL and whether it is Accredited with Quality Council of India (QCI) /National Accreditation Board of Education and Training (NABET): Yes

1.7.3 The EAC during deliberations noted the following:

The proposal is for Terms of Reference (ToR) for Coal Washery Project of 10 MTPA capacity in 20.23 ha area of M/s Orissa Stevedores Limited located in Village Jarapada, Tehsil Angul District Angul (Odisha).

Application for obtaining the approval of the Central Ground Water Authority will be obtained

Water requirement is 1980 KLD. Source will be natural water reservoir is project site and rain water. The water reservoir of capacity 5000 cum is exist at the project site Rain water will be stored in this reservoir and this water will be used for coal washing process. Permission/application of using Pond/surface water from concerned regulatory body will be obtained before commissioning of unit as per the norms/guidelines

No forest land is involved.

*1.7.4 The EAC, after deliberation **recommended** the proposal for grant of Terms of Reference to Coal Washery of 10 MTPA (2x5 MTPA) capacity in 20.23 ha area of M/s Orissa Stevedores Limited located in Village Jarapada, Tehsil Angul, District Angul (Odisha), and specific conditions as below and as defined in the Standard ToR issued by this Ministry for such projects/activities under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto.*

- (i) Public Consultation, including public hearing, shall be conducted through concerned SPCB as per the provisions/procedure contained in the EIA Notification, 2006 for information of the stakeholders about the present coal mining operations inviting comments and their redressal.*
- (ii) Clarification from District Forest Officer that mine does not falls under corridors of any National Park and Wildlife Sanctuary.*
- (iii) For proper baseline air quality assessment, Wind rose pattern in the area should be reviewed and accordingly location of AAMSQ shall be planned by the collection of air quality data by adequate monitoring stations in the downwind areas. Monitoring location for collecting baseline data should cover overall the 10 km buffer zone i.e. dispersed in 10 km buffer area.*
- (iv) Project proponent to prepare Environmental Cost Benefit Analysis for the project in EIA/EMP Report.*
- (v) Permission for ground water withdrawal shall be obtained from Central Ground Water Authority (CGWA), if applicable.*
- (vi) Fund allocation for Corporate Environment Responsibility (CER) shall be made as per Ministry's O.M. No. 22-65/2017-IA.III dated 1st May, 2018 for various activities therein. The details of fund allocation and activities for CER shall be incorporated in EIA/EMP report.*
- (vii) Details of court cases and the compliance status (if any)*
- (viii) Impact of proposed project/activity on hydrological regime of the area shall be assessed and report be submitted. Hydrological studies as per GEC 2015 guidelines to be prepared and submitted*
- (ix) Heavy metals including other parameters in surface water quality shall be analyzed and provided in EIA Report.*

- (x) *The parameters Arsenic, Lead and Silica shall also be analyzed in ambient air quality.*
- (i) *The washing technology so chosen should conform to 'Zero Liquid Discharge'.*
- (ii) *Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.*
- (iii) *For proper baseline air quality assessment, adequate monitoring stations in the downwind areas based on wind rose pattern of the area, shall be set up for collection of air quality data and air quality modeling.*
- (iv) *Disposal of washery rejects shall proposed in FBC/ Power plants by the project proponent.*
- (v) *Thick green belt of 20 mts width to be provided around the washery to mitigate/check the dust pollution. A 3-tier avenue plantation should also be developed along vacant areas, storage yards, loading/transfer points, and also along internal roads/main approach roads.*

Agenda 1.8

Argada Opencast coal mine of 1.7 MTPA in mine lease area of 309 ha of M/s Central Coalfields Limited in PO Sirka, District Ramgarh (Jharkhand) -For Terms of Reference (ToR)

[IA/JH/CMIN/163402/2020; F.No. J-11015/15/2020 - IA.II(M)]

1.8.1 The proposal is for Terms of Reference (ToR) for Argada Opencast coal mine of 1.70 MTPA in mine lease area of 309 ha of M/s Central Coalfields Limited located in PO Sirka, District Ramgarh (Jharkhand).

1.8.2 The details of the project, as ascertained from the proposal documents and as revealed from the discussions held during the meeting, are given as under:

- (i) The project area is covered under Survey of India Topo Sheet No: 73 E/6and is bounded by the geographical coordinates ranging from 23° 38' 00" N and 23° 45' 00" N latitude 85° 27' 00" E and 85°29' 00" E Longitude.
- (ii) Coal linkage of the project is proposed for generation of Energy Sector for various customers through Basket linkage. The coal produced from the proposed project will be sent to existing Railway Siding at Giddi Washery through truck transport.
- (iii) No Joint Linkage.
- (iv) Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC vide its OM dated 13th January 2010 has imposed moratorium on grant of environment clearance.
- (v) Employment generation: Argada OCP will be a major source of direct and indirect employment for nearby villagers in buffer zone. It is expected to generate 574 employments. Under R&R of Project affected people, around 170 PAPs will be provided with R&R benefits.
- (vi) The project is reported to be beneficial in terms of improvements in Physical Infrastructure; Improvements in Social Infrastructure; Increase in Employment Potential; Contribution to the Exchequer; Meet energy and steel sector requirement; Productive utilization of existing manpower of project.
- (vii) This is a new project; no prior EC has been issued for this project.
- (viii) PR of Argada OCP for 1.70 MTPA has obtained in-principle approval CCL Board on 24.01.2012 and communicated vide letter no: U.O. No.CS/BM/384/2012/92 Dt 04.02.2012.

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

Land use During Mining

Sl.no	Particulars	Total Area in Ha.
1	Mine	117.20
2	External Dump	130.00
3	Industrial Infrastructure	8.59
4	Coal Transportation Road	1.50
5	Safety Zone/ Green Belt around Quarry, Dump, infrastructure etc.	31.00
6	Vacant land for Miscellaneous Use	20.71
Total Area in Ha		309.00

(x) Revenue Details of Land given as under:

Type of Land	Total Land (in Ha)
Forest	150.32
GMK JJ	83.56
Tenancy	75.12
Total	309

(xi) Stage-I Applied for an area of 233.88 Ha. (NF+ GMK JJ) vide application no: FP/JH/MIN/19196/2016

(xii) Total net geological reserve within the proposed project area is 165.20MTe. The mineable reserve is 35.80 MT, extractable reserve is 35.80MT. The percent of extraction would be 100 %.

(xiii) 14 seams with thickness ranging from 0.50 m – 21.00m are workable. Grade of coal is Grade G7 to G 14, while gradient is 20⁰ to 25⁰.

(xiv) The method of mining would be opencast mining with Shovel-Dumper operation

(xv) The life of mine is 23 years (Including 2 years of Construction period).

(xvi) Total of 57.73 Mcum of OB waste produced during mining will be taken to the area in the north of pit for external dumping. The area for external dump is 130 Ha and height of 90 m. No internal dumping has been proposed.

(xvii) Total Quarry Area: 117.20 Ha.

(xviii) Transportation of coal: From face to surface by dumpers. From surface to Giddi siding by Tipping trucks.

(xix) Total Forest land (NF+ GMK JJ) within the project area is 233.88 Ha. Stage-I Applied for an area of 233.88 Ha. (NF+ GMK JJ) vide application no: FP/JH/MIN/19196/2016.

(xx) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been reported with 10 km boundary of the project.

(xxi) The ground water level has been reported to be varying between 2.50 m to 11.50 m during pre-monsoon and between 2.10m to 8.50m during post-monsoon.

(xxii) Application for obtaining the approval of the Central Ground Water Authority will be submitted.

- (xxiii) The drainage of the area is mainly controlled by the Damodar River and its tributaries. Damodar river flows at a distance of 1 km south of the project and Pararu nala flows adjacent to the western boundary.
- (xxiv) Regular monitoring of ambient air quality of buffer zone of proposed project is being carried out on fortnightly basis. In general, the results of ambient air quality monitoring data are found within prescribed limits except few aberrations, which can be attributed to the specific local conditions during the day of sampling.
- (xxv) No court cases, violation cases are pending against the project of the PP.
- (xxvi) Kanjagi, Chapri, Argada, Manua & Hesla villages falling within the core zone of Argada OCP. Around 170 PAFs were identified in these villages for Rehabilitation and Re-settlement.
- (xxvii) Around 36.75 Crores has been allotted for carrying R&R. Total cost of the project is Rs. 232.92crore. Environment Management Cost is Approximately Rs. 32.73 Cr.

1.8.3 The EAC during deliberations noted the following:-

The proposal is for Terms of Reference for (ToR) for Argada Opencast coal mine of 1.70 MTPA in mine lease area of 309 ha of M/s Central Coalfields Limited located in PO Sirka, District Ramgarh (Jharkhand).

The Project Report for Argada OCP for a rated capacity of 1.7 MTPA of coal capacity was in-principle approved by the CCL Board on 24.01.2012.

Total Forest land (NF+ GMK JJ) within the project area is 233.88 Ha. Stage-I Applied for an area of 233.88 Ha. (NF+ GMK JJ) vide application no: FP/JH/MIN/19196/2016

Pararu nala constitutes one of the major sources of water, flows along the western boundary of the Argada Block and confluence into the river Damodar. A few 1st order streams originate within the mine area

1.8.4 *The EAC after deliberation recommended the proposal for grant of Terms of Reference to Argada Opencast coal mine of 1.70 MTPA in mine lease area of 309 ha of M/s Central Coalfields Limited located in PO Sirka, District Ramgarh (Jharkhand), and specific conditions as below and as defined in the Standard ToR issued by this Ministry for such projects/activities under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto.*

- (i) *EAC sub-committee shall visit the site and submit its recommendations for the additional conditions to PP overall environment management of the mine.*
- (ii) *Public Consultation, including public hearing, shall be conducted through concerned SPCB as per the provisions/procedure contained in the EIA Notification, 2006 for information of the stakeholders about the present coal mining operations inviting comments and their redressal.*
- (iii) *Stage-I clearance for the entire forestland involved the project shall be obtained before making an application for the environmental clearance*
- (iv) *Clarification from District Forest Officer that mine does not fall under corridors of any National Park and Wildlife Sanctuary.*

- (v) *Wind rose pattern in the area should be reviewed and accordingly location of AAMSQ shall be planned by the collection of air quality data. Monitoring location for collecting baseline data should cover overall the 10 km buffer zone i.e. dispersed in 10 km buffer area.*
- (vi) *Coal shall be transported to the railway siding via conveyor belt system with silo loading*
- (vii) *Mitigation plan to avoid Human-Wildlife Conflict should be prepared scientifically with the help of Wildlife Experts*
- (viii) *No non-mining activity/ancillary activity shall be proposed in forest area*
- (ix) *PP shall explore the possibilities of utilization of OB material for different purposes (in construction of roads, manufacture of artificial sand, aggregates, use for farmers etc.) and accordingly Plan shall be included in EIA/EMP Report*
- (x) *Project proponent to prepare Environmental Cost Benefit Analysis for the project in EIA/EMP Report.*
- (xi) *Permission for Diversion of nallah/water bodies lying in the project area from State Water Resource Department. Study the impact of diversion of nallah on nearby areas and villages.*
- (xii) *Permission for ground water withdrawal shall be obtained from Central Ground Water Authority (CGWA), if applicable*
- (xiii) *Fund allocation for Corporate Environment Responsibility (CER) shall be made as per Ministry's O.M. No. 22-65/2017-IA.III dated 1st May, 2018 for various activities therein. The details of fund allocation and activities for CER shall be incorporated in EIA/EMP report*
- (xiv) *Details of court cases and the compliance status (if any)*
- (xv) *Impact of proposed project/activity on hydrological regime of the area shall be assessed and report be submitted. Hydrological studies as per GEC 2015 guidelines to be prepared and submitted*
- (xvi) *Heavy metals including other parameters in surface water quality (also of Ghagri river) shall be analyzed and provided in EIA Report.*
- (xvii) *The parameters Arsenic, Lead and Silica shall also be analyzed in ambient air quality*
- (xviii) *PP shall provide an integrated mine production and mine reclamation plan of which the systematic and post mining land form management / land scape management of mining area, internal, and external dump area will be integral. Both internal and external dumps shall be regraded and reshaped to reduce its height as close to the original surface level as possible for better land use post mining activities.*

Agenda 1.9

New Kathara Coking coal washery of 3 MTPA capacity in an area of 11.30 ha of M/s Central Coalfields Limited located in village Bandh Tehsil Gomia District Bokaro (Jharkhand) - For Environmental Clearance – reg

[Proposal No. IA/JH/CMIN/77799/2018; F.No. J-11015/98/2018- IA.II(M)]

1.9.1 The proposal is for environmental clearance for New Kathara Coking coal washery of 3 MTPA capacity in an area of 11.30 ha of M/s Central Coalfields Limited located in village Bandh Tehsil Gomia District Bokaro (Jharkhand).

1.9.2 The EAC during deliberations noted the following:

The proposal is for environmental clearance for New Kathara Coking coal washery of 3 MTPA capacity in an area of 11.30 ha of M/s Central Coalfields Limited located in village Bandh Tehsil Gomia District Bokaro (Jharkhand).

The proposal was earlier considered by the sectoral EAC in its 53rd meeting held on 20th February, 2020, wherein the Committee desired for information in respect of the following:

- (i) Either PP shall either revise the Mine Plan of Kathara OCP and shall be valid environmental clearance as the proposed site is in OCP itself or area proposed for washery shall be kept outside Mine Plan of Kathara OCP and demarcated properly.
- (ii) Brief Compliance of each ToR conditions and further referencing for details of compliance shall be provided correctly.
- (iii) Form#2 on Parivesh should be filled with all details and correct information. For example, total wastewater generation is 70000 KLD and recycling is also 7000 KLD. Manpower requirement is 1 Lakh which seems to be incorrect as this project is only a washery. Correct figure should be incorporated in Form#2.
- (iv) Provide fresh /latest characteristics of raw coal sample analysis (% of ash/moisture etc) as data of 2015 is enclosed in EIA/EMP Report.
- (v) Traffic Assessment study with photographs of road and air pollution modelling due to increase traffic along with present of habitation shall be produced before EAC. High tonnage trucks should be considered to reduce the number of trucks.
- (vi) Values of PM10 are reported to be high. PP shall be present mitigation measures to reduce PM10 in details accordingly.
- (vii) Explore the possibility of conveyor belt for transportation of coal from mine pit to washery.
- (viii) Ground Water Recharge Estimation of buffer zone shall be done as per guidelines of GEC 2015 instead of 1997 guidelines.
- (ix) Air Quality modelling of pollutant PM2.5, SOx and NOx shall be submitted vis-à-vis its impacts/mitigation measures.
- (x) Permission of extraction of ground water intersection/extraction from Central Ground Water Authority shall be taken.
- (xi) Details of hazardous waste generation (if any) during washery operations and further handling/disposal shall be provided in details.
- (xii) Proposed plan for development of green belt shall be provided with fund allocated and year wise plantation plan.
- (xiii) Utilization of washery rejects in power plant shall be proposed accordingly plan for utilisation should be provided. EAC insisted that PP must follow up Ministry of Coal for finalisation of coal washery rejects policy.
- (xiv) Surface water quality of stored mine water shall be analysed and to be presented.
- (xv) Water balance considering usage of only stored mine water shall be presented. No other surface or ground water shall be used.
- (xvi) The activities and fund provisions for CER shall be made as per the guidelines issued by the ministry regarding CER on 1st May, 2018.

The proposal was accordingly **returned** in its present form

1.9.3 EAC noted following details with respect to compliance of the observations.

Sr. No.	Observations of EAC	Compliance / Submission of Project Proponent															
1	Either PP shall either revise the Mine Plan of Kathara OCP and shall be valid environmental clearance as the proposed site is in OCP itself or area proposed for washery shall be kept outside Mine Plan of Kathara OCP and demarcated properly.	The revised mine plan of Kathara OCP excluding the washery area was approved by CCL board in its 485 th meeting held on 04.05.2020.															
2	Brief Compliance of each ToR conditions and further referencing for details of compliance shall be provided correctly.	Brief compliance of each ToR conditions have been incorporated in the Chapter 1 of EIA/EMP															
3	Form#2 on Parivesh should be filled with all details and correct information. For example, total wastewater generation is 70000 KLD and recycling is also 7000 KLD. Manpower requirement is 1 Lakh which seems to be incorrect as this project is only a washery. Correct figure should be incorporated in Form#2.	<p>Total waste water coming from the washery circuit is 622 cum/hr (8708 cum/day). It includes 107 cum/hr (1498 cum/day) from water going out with washed coal, 15 cum/hr (210 cum/day) from water going out with rejects and 500 cum/hr (7000 cum/day) from water recycled respectively.</p> <p>Manpower requirement reflected at para 31 is the total man-days generated for the washery in 18 years for its entire life. It includes Permanent Employment (During construction and operation) and Temporary Employment (During construction and operation) for which the approximate man-days likely to be generated.</p> <p>This project will provide 220 numbers of direct employment and 1100 numbers of indirect temporary employment totaling to 1320 numbers of employment.</p> <p>The correct figure is as follows :</p> <table border="1" data-bbox="683 1514 1325 1885"> <thead> <tr> <th colspan="3">Manpower Requirement</th> </tr> </thead> <tbody> <tr> <td>(a)</td> <td>Permanent Employment - During construction</td> <td>100</td> </tr> <tr> <td>(b)</td> <td>Permanent Employment - During operation</td> <td>220</td> </tr> <tr> <td>(c)</td> <td>Temporary Employment - During construction</td> <td>500</td> </tr> <tr> <td>(d)</td> <td>Temporary Employment - During operation</td> <td>1100</td> </tr> </tbody> </table>	Manpower Requirement			(a)	Permanent Employment - During construction	100	(b)	Permanent Employment - During operation	220	(c)	Temporary Employment - During construction	500	(d)	Temporary Employment - During operation	1100
Manpower Requirement																	
(a)	Permanent Employment - During construction	100															
(b)	Permanent Employment - During operation	220															
(c)	Temporary Employment - During construction	500															
(d)	Temporary Employment - During operation	1100															
4	Provide fresh /latest	Fresh Characteristics of raw coal sample analysis are															

	characteristics of raw coal sample analysis (% of ash/moisture etc) as data of 2015 is enclosed in EIA/EMP Report.	provided at page 10 of chapter 2 of EIA/EMP report.
5	Traffic Assessment study with photographs of road and air pollution modelling due to increase traffic along with present of habitation shall be produced before EAC. High tonnage trucks should be considered to reduce the number of trucks	Traffic Assessment study along with photographs and other information has been incorporated in chapter 7 (para 7.5) of EIA/EMP report. The Existing and changed Level of Congestion is also given below for quick reference High capacity trucks shall be utilized for coal transportation.
6	Values of PM10 are reported to be high. PP shall be present mitigation measures to reduce PM10 in details accordingly.	<ul style="list-style-type: none"> • Ground level concentration of PM₁₀ were monitored at 06 locations out of which 02 locations are in the core zone, which is in the vicinity of existing coal mines/coal washery. • The concentration of PM10 in the core zone is in the range of 124.6 µg/m³ (maximum) to 101.2 µg/m³(Minimum). The above observations of PM10 concentration in core zone falls within the prescribed limit (250 µg/m³) as per GSR 742E. ₹ 1.40 Cr has been provided for Air pollution control measures. (ref pp. X-6, Chapter 10 of EIA/EMP):
7	Explore the possibility of conveyor belt for transportation of coal from mine pit to washery	The washery is located at about 3 km from Kathara OCP and there are no residential/ commercial units in the vicinity. Further the coal received from Govindpur OCP will be brought in tarpaulin covered trucks. As such transportation of raw coal from mine to washery is proposed via Road only.
8	Ground Water Recharge Estimation of buffer zone shall be done as per guidelines of GEC 2015 instead of 1997 guidelines	The report has been modified and amended as per GEC 2015 and is given at para 3.7 of chapter 3 of EIA/EMP
9	Air Quality modelling of pollutant PM2.5, SOx and NOx shall be submitted vis-à-vis its impacts/mitigation measures	Air Quality impact study has been carried out and it is observed that values of incremental PM _{2.5} , SO ₂ and NO _x concentration considering 98th percentile baseline data is within permissible limit. The Air Quality Impact Prediction has been carried out with AERMOD (Version 9.4) software of USEPA
10	Permission of extraction of	Application for permission to abstract ground water for

	ground water intersection/extraction from Central Ground Water Authority shall be taken.	industrial use has been made vide application no-21-4/619/JH/IND/2020 on dated -11/02/2020. 1869 cum/day water (TOR condition no-ii) is required for the washery and to be taken from stored mine water of sump/pond of Kathara OCP.
11	Details of hazardous waste generation (if any) during washery operations and further handling/disposal shall be provided in details.	The Generation of hazardous waste is given below: a. Burnt oil = Approximately 20 KL /Yr b. Oil Soaked cotton/rubber etc. = 2000 kg/yr. The Details are also given at para 4.7 of Chapter 4 of EIA/EMP.
12	Proposed plan for development of green belt shall be provided with fund allocated and year wise plantation plan	Proposed plan for green belt development is given below: (Para 4.1.4 of Chapter 4 of EIA/EMP). The amount ₹15 Lakh has been allocated as green belt development in Air pollution control measure head
13	Utilization of washery rejects in power plant shall be proposed accordingly plan for utilisation should be provided. EAC insisted that PP must follow up Ministry of Coal for finalisation of coal washery rejects policy.	The rejects will be utilized in the nearby Kathara CPP.(2 x 10 MW)
14	Surface water quality of stored mine water shall be analysed and to be presented	Sample of stored mine water has been collected on 13.03.2020 and analysis report of the same has been given at Annexure III of EIA/EMP. All parameters are within permissible limit
15	Water balance considering usage of only stored mine water shall be presented. No other surface or ground water shall be used	Water balance of stored mine water has been presented at plate 20 and is appended below. No other surface or ground water will be used
16	The activities and fund provisions for CER shall be made as per the guidelines issued by the ministry regarding CER on 1 st May, 2018	As per MoEF notification F.No.22-65/2017-IA.III dated 15.05.2018, ₹ 4.04 Crs have been earmarked under CER fund. The different heads under CER includes drinking water supply, sanitation, health, education, skill development, roads, cross drains, solar power, solid waste management facilities, scientific support and awareness to local farmers to increase yield of crop and fodder, rain water harvesting, soil moisture conservation works, avenue plantation, plantation in community areas, etc.

		The fund allocation for the CER for New Kathara Coking Coal washery (3.0 MTPA), is given below :	
Sl no.	capital expenditure	Rate of CER as per MoEF notification F.No.22-65/2017-IA.III dated 15.05.2018	Amount
1	₹ 26950.00 Lakhs.	1.5 %	₹ 4.04 Crs

1.9.3 *The EAC after deliberation on submission of project proponent, observed that details submitted are incomplete and require more inputs from PP. Further data presented was having various discrepancies, PP and its consultant should be extra cautious while presenting the data. EAC desires further response on the following observation*

- *PP shall present the compliance of ToR submitted in EIA/EMP to the EAC*
- *Air pollution modelling due to increase traffic along with presence of habitation shall be produced before EAC*
- *Reason of not proposing to implement conveyor transport from Kathara OCP to washery which is only 3 km away*
- *Ground Water Recharge Estimation of buffer zone submitted in EIA shall be presented*
- *Since the area comes under over extracted with regard to ground water and also there are various NGT cases related to this Prior permission of CGWA is must.*
- *Proposed fund allotted for development of green belt is very less and accordingly shall be increased and year wise plantation plan shall be provided*
- *Proposed utilisation of Washery rejects in 20 MW power plant shall be submitted. MoU stating the utilisation quantity shall be furnished.*
- *Mine Approval document submitted by PP does not quote anywhere that area of washery has excluded from Kathara OCP instead it has been approved for extension of validity of EC from MoEF. PP must clarify.*
- *Quality of road as given in EIA/EMP at chapter 7 (section 7.5) is very poor and may increase the dust generation. Plan for improvement of quality of road (if any)*

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

Agenda 1.10

Expansion of New Majri UG to OC from 1.20 MTPA to 3.0 MTPA (Normative), 3.75 MTPA (Peak) & land area from 479.16 to 706.28 ha located in Shivji Nagar Majri, teh Bhadravati, District Chandrapur (Maharashtra)

[IA/MH/CMIN/150955/2019; F.No. IA-J-11015/25/2008-IA-II(M)]

1.10.1 The proposal is for Environment Clearance for Expansion of New Majri UG to OC from 1.20 to 3.0 MTPA (Normative) / 3.75 MTPA (Peak) and with increased in area from 479.16 ha to 706.28 ha located in Shivaji Nagar Majri, Tehsil Bhadravati, District Chandrapur (Maharashtra).

1.10.2. 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 area is covered under Survey of India Topo Sheet No 55 P/4 and is bounded by the geographical coordinates ranging from latitude 20°06'45.43" N to 20°08'43.08" N and Longitude 79°00'13.53" E to 79°01'59.9" E.
- (ii) Coal linkage of the project is proposed for Thermal power plants of MAHAGENCO & Miscellaneous consumers.
- (iii) Joint venture cartel has been formed with none.
- (iv) Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC's vide its OM dated 13th January, 2010 has imposed moratorium on grant of environment clearance.
- (v) Employment generation, employment to 549 persons will be provided from the project. Approximately 300 contractual workers will get employment through outsourcing agencies
- (vi) Project Benefits: Conservation of Coal. It will also lead to positive environmental impacts like green cover, mine water utilization etc. Adjacent mine void will be backfilled and reclaimed with plantation. Out of total 706.28 ha, 234.84 ha i.e. 33% area will be brought under plantation. The project will lead to development of roads, ancillary industries, Improvement in social & living standards by providing opportunities of direct & indirect employment to local community. Fund allocated to Corporate Environmental Responsibility is 2.9946 crores. A substantial percentage of population is dependent on mining industry directly or indirectly. Because of this mining project some of the local population may take direct employment but a substantial impact will be on creation of indirect job opportunities and employment.
- (vii) Earlier, the environment clearance to the project was obtained under EIA Notification, 2006 vide Ministry's letter No J-11015/25/2008-IA.II (M) dated 13.02.2017 for 1.20 MTPA in land area of 479.16 ha. Amendment in EC conditions was granted by MoEF&CC vide ref no. J-11015/25/2008-IA.II (M) dated 30.09.2017.
- (viii) Total mining lease area as per block allotment is 706.28 ha. Project Report including Mining Plan (with built in Mine Closure Plan) has been approved by the WCL Board vide letter no WCL/BD/SECTT/BM-311/2019/539 dated 07.06.2019.
- (ix) The land usage pattern of the project is as follows:

Pre-mining land use details

Sl. No.	Particulars	Existing Land (ha)	Additional land (ha)	Total Land (ha)
1)	Tenancy land	460.21	220.30	680.51
2)	Government land	18.95	6.82	25.77
3)	Forest land	0.00	0.00	0.00
	Total	479.16	227.12	706.28

During Mining land Use Pattern :

Sl. No.	Particulars	Existing Area (ha)	Proposed Area (ha)
1.	Quarry Area	114.35	358.35
2.	External OB dump	84.60	84.60
3.	BC Soil Dump	4.20	4.20
4.	Colony / Infrastructure	10.00	15.00
5.	Embankment	12.90	53.20
6.	Safety zone along Dump	64.62	47.49
7.	Blasting Zone		58.69
8.	Area needed for rationalization	188.49	84.75
	Total Land	479.16	706.28

Post-mining land use details

Sl. No.	Particulars	Existing Area (ha)	Proposed Area (ha)
1.	Quarry Area	114.35	358.35
2.	External OB dump	84.60	84.60
3.	BC Soil Dump	4.20	4.20
4.	Colony / Infrastructure	10.00	15.00
5.	Embankment	12.90	53.20
6.	Safety zone along Dump	64.62	47.49
7.	Blasting Zone		58.69
8.	Area needed for rationalization	188.49	84.75
	Total Land	479.16	706.28

- (x) Total geological reserve reported in the mine lease area is 50.839 MT. Out of 50.829 Mt geological reserves available within the quarry area, about 12.84 Mt has already been extracted from UG workings (9.64 Mt) and OC workings (3.20 Mt). Thus net geological reserves available in the quarry as on 01.04.2018 works out to 37.99 Mt. Mineable reserve are 37.99 Mt. Out of total mineable reserve of 37.99 MT, 36.09 MT are available for extraction. Percent of extraction is 95 %.
- (xi) One composite seam with thickness ranging from 12.88 m – 18.89 m is workable. Grade of coal is G-11, stripping ratio 1: 10.34 m³/t while gradient is 1:4.6 to 1:4.8
- (xii) Method of mining operations is envisaged by Opencast with Shovel – Dumper Combination method.
- (xiii) Life of mine is 14 years.
- (xiv) The project has one external OB dumps in an area of 84.60 ha with 90 m height and 38.84 Mm³ of OB quantity. One internal OB dump in an area of 537.50 ha with 336.73 Mm³ of OB is envisaged in the adjacent coal mine New Majri sector IA & IIA OC. Due to steep gradient, no simultaneous backfilling has been proposed in New Majri UG to OC Expansion mine. The adjacent New Majri Sector IA & IIA Extension OC mine located in the south side beyond Wani-Majri Railway line is likely to be exhausted in next 5 years. There is no further scope of expansion of this mine in dip side due to Wardha River. Hence, it is proposed in approved Project Report to utilize the void and surface area of New Majri Sector IA & IIA Extension OC for dumping of OB of proposed New Majri UG to OC Expansion mine. A

railway over bridge (ROB) / Rail under bridge (RUB) has been proposed for the dumpers to cross the railway line for OB dumping.

- (xv) In New Majri UG to OC, total quarry area is 358.25 ha out of which no backfilling is proposed while final mine void will be created in an area of 358.25 ha with a depth of 250 m. Since there is steep gradient, no simultaneous backfilling has been proposed. Backfilled quarry area in the nearby New Majri sector IA & IIA OC of 537.50 ha shall be reclaimed with plantation. Final mine void will be converted into water body.
- (xvi) Transportation of coal has been proposed by Dumpers in mine pit head, from surface to siding by Dumpers and at sidings by pay loaders.
- (xvii) Reclamation Plan in an area of 234.80 ha, comprising of 84.60 ha of external dump, 0.00 ha of internal dump (within quarry of New Majri UG to OC) and 140.0 ha of green belt (including area of safety/rationalisation zone). In addition to this, an area of 6.00 ha, included along infrastructure and embankment, has also been proposed for green belt development.
- (xviii) No forest land has been reported to be involved in the project.
- (xix) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been reported with 10 km boundary of the project.
- (xx) The ground water level has been reported to be varying between 8.20 to 14.55 m during pre-monsoon and between 4.60 to 14.90 m during post-monsoon (core zone). Total water requirement for the project is 910 KLD.
- (xxi) Application for obtaining the approval of the Central Ground Water Authority for New Majri UG to OC Mine has been approved vide CGWA letter no CGWA/NOC/MIN/ORIG/2020/7125 dated 09.01.2020 with validity upto 08.01.2022.
- (xxii) Public hearing for the project of 3.75 capacity in an area of 706.28 ha was conducted on 12.12.2019 at Community Hall, WCL Kuchna Complex, Tehsil Bhadravati, District Chandrapur, Maharashtra. Major issues raised in the public hearing included rehabilitation, employment, utilisation of CSR fund for various developmental activities in the nearby villages, diversion of Majri-Patala Road etc. Appropriate action to address the issues raised in the Public Hearing have already been taken/proposed to be taken are detailed in the Section 2, Chapter – 7 of the EIA-EMP Report along with the fund allocation and timeline of redressal of issues.
- (xxiii) Consent to Operate for existing capacity of 1.20 MTPA has been secured from MPCB vide letter Format 1.0 / CAC/ UAN no. 00000 18990/ CO- 2003000553 dated 9th March, 2020 and is valid till 31 March, 2021.
- (xxiv) Koradi River/nalla used to flow within the boundary of lease. The nallah has been diverted for the existing project. No further nallah diversion is proposed in the present expansion proposal.
- (xxv) The baseline data for Ambient Air Quality was generated in Post-Monsoon season from 1st October, 2019 to 22nd December, 2019 for 12 weeks continuously. The results were found to be within permissible limits. The regular ambient air quality monitoring data (being continuously generated in compliance of EC) recorded for the last 2 years in and around the project from January 2017 to April 2019 with 521 samples and CAAQMS data of Feb'19 to May'19 have been also incorporated in the EIA-EMP report. In general, the results of ambient air quality monitoring data were found within prescribed limits except few aberrations in the regular monitoring data of previous two years which can be attributed to the specific local conditions during the day of sampling.

- (xxvi) No court cases, violation cases are pending against the project of the PP.
- (xxvii) The project does not involve violation of the EIA Notification, 2006 and amendment issued thereunder. The coal production from the mine was started from the year 2015 onwards. No excess production of coal from the sanctioned capacity has been realized since the commencement of mining operations. The coal production, realized from the project, from 1993-94 onwards, is as under:

Year	EC sanctioned capacity (MTPA)	Actual production (MTPA)	Excess production beyond the EC sanctioned capacity
2012-13	0.80	0	Nil
2013-14	0.80		Nil
2014-15	0.80	0	Nil
2015-16	0.80	0.80	Nil
2016-17	1.20	1.20	Nil
2017-18	1.20	1.20	Nil
2018-19	1.20	1.20	Nil
2019-20	1.20	1.20	Nil

- (xxviii) The project involves 110 project affected families (house-out sees). R&R of the PAPs will be done as per Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation & Resettlement Act, 2013.
- (xxix) Total cost of the project is Rs. 49638.29 Lakhs. Cost of production is Rs2389.71/t per tonne (at 85%). The fund for the CSR will be allocated based on 2% of the average net profit of the Company for the three immediate preceding financial years or Rs 2.00 per tonne of Coal Production of the previous year whichever is higher. R&R cost is Rs Rs 1437.10 Lakhs. Environment Management Cost is Rs. 1997.76 Lakhs.
- (xxx) Consent to Operate for existing capacity of 1.20 MTPA has been secured from MPCB vide letter Format 1.0 / CAC/ UAN no. 00000 18990/ CO- 2003000553 dated 9th March, 2020 and is valid till 31 March, 2021.

1.10.2 The EAC during deliberations noted the following:

The proposal is for Environment Clearance for Expansion of New Majri UG to OC from 1.20 to 3.0 MTPA (Normative) / 3.75 MTPA (Peak) and with increased in area from 479.16 ha to 706.28 ha located in Shivaji Nagar Majri, Tehsil Bhadravati, District Chandrapur (Maharashtra).

Earlier, the environment clearance to the project was obtained under EIA Notification, 2006 vide Ministry's letter No J-11015/25/2008-IA.II (M) dated 13.02.2017 for 1.20 MTPA in land area of 479.16 ha. Amendment in EC conditions was granted by MoEF&CC vide ref no. J-11015/25/2008-IA.II (M) dated 30.09.2017.

The Terms of Reference was granted by Ministry on 23rd October, 2019.

Total mining lease area as per block allotment is 706.28 ha. Project Report including Mining Plan (with built in Mine Closure Plan) has been approved by the WCL Board vide letter no WCL/BD/SECTT/BM-311/2019/539 dated 07.06.2019.

Public hearing for the project of 3.75 capacity in an area of 706.28 ha was conducted on 12.12.2019 at Community Hall, WCL Kuchna Complex, Tehsil Bhadravati, District Chandrapur, Maharashtra.

The project does not involve any forest land for non-forestry activity.

The baseline data for Ambient Air Quality was generated in Post-Monsoon season from 1st October, 2019 to 22nd December, 2019 for 12 weeks continuously. The results were found to be within permissible limits. The regular ambient air quality monitoring data (being continuously generated in compliance of EC) recorded for the last 2 years in and around the project from January 2017 to April 2019 with 521 samples and CAAQMS data of Feb'19 to May'19 have been also incorporated in the EIA-EMP report.

Certified compliance report has been obtained from Regional Office, MoEF&CC, Nagpur vide letter no EC 607 / 2017 NGP/ 5788 dated 1st October, 2019

Project proponent has already constructed embankment along the river Wardha. It is observed that some coal mines are situated along the river banks and embankment is to be constructed for protection of coal mine. Such embankment may obstruct the river flood flow. In such case, whether the separate permission of state government is required, is the issue. This matter may please be referred to policy making committee. After receipt of decision from this committee, the thing can be incorporated in the future minutes

The suggestion to consider annual average value for EC, may please be referred to Policy Making Committee, as it is applicable for various EACs. After receipt of the decision from policy making committee, the same can be incorporated in future minutes. Meanwhile, the current practice may be continued.

There is no ecologically sensitive areas such as Biosphere Reserves National Parks WL Sanctuaries Elephant Reserves, forests (Reserved/ migratory corridors of fauna and areas where endangered fauna and plants of medicinal and economic importance are found in the 15 km area of the buffer zone

1.10.3 *The EAC after deliberation sought compliance on below mentioned details:*

- *PP shall prepare and submit Mine Closure Plan as per latest guidelines of Ministry of Coal.*
- *Study the impact of diversion of nallah on hydrogeology and community.*
- *Quality of mine water shall be analyzed for heavy metals.*
- *Water Balance scheme shall be presented without any discharge in nallah or river and water usage agreement should be provided power plants and villages with quantity.*

- *Impact of constructed embankment on village Patala shall be studied for flooding and necessary mitigation measure should be proposed*
- *Heavy metals shall be analyzed for surface water*
- *PP shall submit Action Taken Plan on non/partial compliance observed by Ministry's Regional Office during its inspection for certified compliance report.*
- *Mine Plan including Mine Closure Plan (including yearly calendar plan) should be as per proposed Peak capacity of 3.75 MTPA.*

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

Agenda 11

Prakasham khani Opencast Coal mine Project (10 MTPA) in an ML area 2402.40 ha of M/s The Singareni Collieries Company Limited located in village & Mandal Manuguru, District Bhadradi Kothagudem (Telangana) - For Environmental Clearance – reg.

[Online Proposal No. IA/TG/CMIN/117465/2019; F.No. J-11015/78/2013-IA-II(M)]

1.11.1 The proposal is for Environment Clearance for Prakasham Khani Opencast Coal Mine (Amalgamation of Manuguru OC II Expansion & Manuguru OC IV Extension) of 9.75 MTPA capacity in mine lease area of 2402.40 ha. (2214.84 ha is Forest Land and 187.56 ha is Non Forest Land) located in Village & Mandal Manuguru, District Bhadradi Kothagudem, (Telangana)

1.11.2 The EAC during deliberations noted the following:

The proposal was earlier considered by the sectoral EAC in its 53rd meeting held on 20th February, 2020, wherein the Committee desired for information in respect of the following

The EAC after deliberation suggested to improve the quality of content first in the EIA/EMP report for example it is reported that pH ranging from 7.3 to 8.5 found in surface water is acidic in nature. Also, sought clarification of land details and availability of forest clearance for said land involved in the project. Further, if the mining is in operation then PP must have obtained Stage-II FC. EAC insisted for detailed view on land and desired that the PP should check .kml file, and Stage II FC in the next sitting. Certified compliance reports non-compliances of EC conditions wherein PP has not installed conveyor belt from pit head to CHP and still the operations is going on by trucks/dumpers. This is non-compliance of EC conditions and no commitment for early compliance has been given in the meeting. EAC desired that all non-compliance highlighted in certified compliance in EC conditions of Manuguru II & IV should be complied with strict timelines. Also, following observations were made to the PP.

- PP should upload correct information on PARIVESH portal as CTO of PK OC Extension (for 4 / 5 MTPA is uploaded instead of Manuguru OC II & IV.
- EAC desired for detailed River protection plans as the said nallah may be the tributary of Godavari river.
- Timeline of completion of diversion of nallah.

- Details of projected OB Dumping Plan and its removal. Also, height of OB dump is proposed to be 120 m feasibility and stability study needs to be ascertained.
- Greenbelt development is mentioned only 28 ha. No progressive reclamation and greenbelt development are projected by PP.
- Water balance with quantity of water at each block shall be provided.
- Chemical Analysis of silica shall be conducted in Ambient Air Quality.
- Permission of CGWA for the expansion capacity for Manuguru II (i.e. 5 to 6.5 MTPA)
- Mechanism for treating stored mine water shall be developed to avoid any ground and surface water contamination

The proposal was **deferred** for want of above compliance

1.11.4 EAC noted following details with respect to compliance of the observations.

Sr. No.	Observations of EAC	Compliance / Submission of Project Proponent
1	Clarification of land details and availability of forest clearance for said land involved in the project.	<p>The Stage-II FL Clearances were obtained for entire forest land of 2214.84 ha of proposed PK OC Mine.</p> <p>Land details:</p> <ul style="list-style-type: none"> • Initially, EC was granted for MNG OC-II Exp. Project for a capacity of 4.00 (Peak 5.00) MTPA with a project area of 3205.76 ha (2673.60 ha FL + 532.06 ha NFL). • Subsequently, EC was obtained under one-time capacity expansion for 25% production enhancement restricting the project area to 1526.20 ha (994.14 ha FL + 532.06 ha NFL) with the available forest and non-forest area. • MoC advised SCCL to re-submit the proposal considering the amalgamation of MNG OC - II Exp. Project & MNG OC - IV Ext. Project for optimum utilization of available land of the both projects. • Subsequently, a Mining Plan for Prakasham Khani OC Mine (Amalgamation of MNG OC- II Exp. Project & MNG OC-IV Ext. Project) was approved by MoC for an extent of 2402.40 ha (2214.84 ha FL & 187.56 ha NFL) with a capacity of 10 MTPA.
2	Certified compliance reports non-compliances of EC conditions wherein PP has not installed conveyor belt from pit head to CHP and still the operations is going on by trucks/dumpers	<ul style="list-style-type: none"> • The construction of bunkers was taken up for transportation of coal through belt conveyor to KCHP for MNG OC-IV Ext. • As Gandhinagar was falling within 500m from the proposed bunker, the villagers objected the construction. • Further, EE, RO, TSPCB, advised SCCL to

		<p>refrain from making such arrangement.</p> <p>Accordingly, the coal transportation route was altered that from in-pit to pit head CHP by belt conveyor & from pit-head to KCHP by trucks by internal road falling in the project area. From KCHP, coal is being dispatched through rail mode. Further, it is proposed to transport entire coal from the the west side quarry of the project to KCHP through belt conveyor</p>
3	<p>PP should upload correct information on PARIVESH portal as CTO of PK OC Extension (for 4 / 5 MTPA is uploaded instead of Manuguru OC II & IV.</p>	<ul style="list-style-type: none"> • Manuguru Opencast-II Exp. Project is locally called as Prakasham Khani Opencast-II (PK OC-II Ext. Project). • The name of the project was mentioned as PK OC - II Extension project instead of Manuguru Opencast-II Expansion Project inadvertently in CTO renewal application, on which, CTO (from 4 / 5 (Peak) MTPA) was granted which was valid only up to 30.06.2012. • The project area, production capacity and EC date mentioned in the CTO issued are matching with the EC issued for Manuguru OC – II Exp. • An application for change of name was submitted to EE, RO, TSPCB and the TSPCB certified that the CFO issued on the name of PK OC-II Ext., was the CFO of MNG OC-II Expansion project.
4	<p>EAC desired for detailed River protection plans as the said nallah may be the tributary of Godavari river.</p>	<p>A River Protection Plan has been prepared by EPTRI, Hyd., after conducting a detailed study on diversion of Gorrepeta vagu.</p> <p>The salient points of the report on River Protection Plan:</p> <ul style="list-style-type: none"> • Gorrepeta vagu is a 4th order stream and is ephemeral in nature. • Gorrepeta vagu has been diverted for a length of 6.13 Km after obtaining NoC and as per guide lines of I&CAD Dept. • The feeder channels and the local drainage network have been restored and maintained. • It is proposed to construct two check dams across the diverted vagu with estimated fund of Rs.5.96 crores for safe guarding nine tanks as per advise of I&CAD Dept. • Check dams construction earth work is started. <p>An ayacut of 2,230 acres of Pagideru, Kothuru and Ramanujavaram villages will be restored by these two check dams</p> <ul style="list-style-type: none"> • There will be no reduction in the total quantity of

		<p>flow, no affect on velocity of flow, on hydrology and to the existing beneficiaries in surrounding villages due to diversion.</p> <ul style="list-style-type: none"> • A flood protection bund of 10m height and 6m width has been made against the diverted portion of vagu to avoid inadvertent entry of water into the quarry area. • A safety zone distance of 50m from quarry limit line was left against the diverted vagu and 3-tier plantation will be taken up in safety zone. • A safe zone distance of 100m is left from toe of two sections of north external dump on both sides of vagu. • It is proposed to take up 3-tier plantation in safe zone (including on bund) with native species to protect the vagu and stage wise biological reclamation is being taken up on stabilized dump as per afforestation programme. • Further, a study was conducted through ICFRE to assess the impact of diversion of the Gorrepeta vagu on surrounding flora and fauna and it was concluded in the report that there would be no impact on surrounding flora and fauna.
5	Timeline of completion of diversion of nallah	The diversion of nallah for a length of 6.13 km was carried out as per guidelines of I&CAD Dept. and was completed in May 2020.
6	Details of projected OB Dumping Plan and its removal. Also, height of OB dump is proposed to be 120 m feasibility and stability study needs to be ascertained	<p>i. OB Removal and its Dumping Plan:</p> <ul style="list-style-type: none"> • Total overburden to be excavated throughout the entire life of the project is 1,508.00 Mm³ (1,500.44 Mm³ of Hard OB & 7.56 Mm³ of topsoil). • Out of 1,500.44 Mm³ of hard OB, 437.22 Mm³ will be dumped in the external dump yard & 1,063.04 Mm³ will be accommodated in the internal dump yard. Remaining 0.18 Mm³ of hard OB will be used for embankment. • Out of 7.56 Mm³ of top soil, 3.70 Mm³ will be spread on the internal dump, 3.84 Mm³ on external dump and 0.02 Mm³ on embankment • EC (Corrigendum,dt.05.01.2015) was given for MNG OC – II Exp. Project for a dump height of 120m for both external and internal dumps as per Para No. 2 (viii). • Accordingly, dumping is being done up to 120m height.

		<ul style="list-style-type: none"> • Dump stability is being monitored as per Regulation No.106(2) of the Coal Mine Regulations, 2017 and dump is stable, and no movement/sliding is observed till now. • Further, a Scientific Study was conducted through CSIRO, Australia, on "Stability Analysis and Design Optimization of Overburden Dumps and Deep Opencast Mines at Singareni Collieries" including MNG OC-II Expansion Project & MNG OC-IV Extension Project.
7	Greenbelt development is mentioned only 28 ha. No progressive reclamation and greenbelt development are projected by PP	<ul style="list-style-type: none"> • Plantation of 28 ha taken up all along the boundary in safety zone of the project area is mentioned as greenbelt. • In addition to this, dump plantation was also done to an extent of 372.87 ha., as a part of progressive reclamation (MNG OC-II Exp. Project and MNG OC-IV Ext. Project). • As on 31.03.2020, plantation was done in area of 237.20 ha (16.78 ha Green belt & 220.42 ha dump area) in MNG OC-II Exp. Project and 163.67 ha (11.22 ha Greenbelt & 152.45 ha dump area) in MNG OC-IV Ext. Project under progressive reclamation. • The total progressive plantation area of both the projects (MNG OC-II Exp. & MNG OC-IV Ext.) is 400.87 ha.
8	Water balance with quantity of water at each block shall be provided	The average quantity of water being pumped out is 17,102 KLD (MNG OC-II Exp. & MNG OC-IV Ext.). Out of 17,102 KLD of water, 6,508 KLD is being used for various purposes and 10,594 KLD of treated water is being discharged into nearby irrigation tank. The water balance statement of proposed PK OC mine is furnished
9	Chemical Analysis of silica shall be conducted in Ambient Air Quality	The Silica in AAQ is furnished. Method: ICP & XRF. There is no standard as per NAAQS of CPCB. The work place exposure limit as per NIOSH is 50 ug/m ³ .
10	Permission of CGWA for the expansion capacity for Manuguru II (i.e. 5 to 6.5 MTPA)	<ul style="list-style-type: none"> • GWC was obtained for MNG OC-II Exp. Project (5.0 MTPA). • An application was submitted to State Ground Water Department for granting of GWC for MNG OC-II Exp. Project (6.25 MTPA) and MNG OC – IV Ext. (3.50 MTPA). • Further, GWD was requested to issue GWC in the name of PK OC (9.75 MTPA).

		<ul style="list-style-type: none"> The field survey charges were paid and field inspection was also completed; awaiting GWC.
11	Mechanism for treating stored mine water shall be developed to avoid any ground and surface water contamination	<p>Treatment Mechanism for mine discharge water:</p> <ul style="list-style-type: none"> The mine seepage water and surface runoff water is being collected in mine sump (made in de-coaled area). The collected mine seepage water is being treated in settling tanks and check dams provided on surface for removal of suspended solids. Excess treated mine discharge water is being discharged into nearby agricultural tanks which is being used by nearby villages for irrigation. The quality of mine discharge water, Surface Water and Ground Water is being monitored at stipulated intervals through EPTRI, Hyd., in order to ensure that the surface and ground water bodies are not contaminated by mine discharge water. The parameters are within the stipulated limits

The Land details of MNG OC-II Exp., MNG OC-IV Ext. & PK OC Mine

	MNG OC – II Exp.			MNG OC – IV Ext.			PK OC Mine		
	<i>FL</i>	<i>NFL</i>	<i>Total</i>	<i>FL</i>	<i>NFL</i>	<i>Total</i>	<i>FL</i>	<i>NFL</i>	<i>Total</i>
EC	2673.70	532.06	3205.76	654.95	79.65	734.60	-	-	-
Present Proposal	1559.89*	107.91*	1667.80	654.95	79.65	734.60	2214.84	187.56	2402.40

1113.81 ha FL + 424.15 ha NFL is excluded (not diverted / acquired due to no lease/coal block allocation for this area) in the proposed PK OC Mine.

Stage –II Forest Clearance(s):

- Stage –II Forest Clearance(s) have been obtained for entire EC and proposed areas.
- The Stage-II FL Clearances were obtained for entire forest land of 2214.84 ha of proposed PK OC Mine.\

Details of Stage-II FL Diversions

Forest Clearance (Stage-II FC)	Total Area in ha	Area in the Prakasham Khani OC Mine in ha
F.No. 8-73/2005-FC, dated 10.07.2008 (Corrigendum dated 06.11.2009)	1161.00	828.16
F.No. 8-8/96-FC, dated 10.10.1997	286.25	286.25
F.No. 8-56/2004-FC, dated 14.07.2008	125.90	125.90
F.No. 8-37/2001-FC, dated 31.12.2003	75.00	75.00

F.No. 8-7/2008-FC, dated 30.12.2008	175.69	175.69
F.No. 8-71/2009-FC, dated 06.01.2016	10.50	4.68
F.No. 8-79/2013-FC, dated 24.04.2017	430.42	430.42
G.O.Ms. No. 1, dated 04.01.2019	367.03	288.74
<i>Total</i>		2214.84

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 the grant of Environment Clearance (EC).

1.11.5 *The EAC, after deliberations **recommended** the proposal for grant of Environment Clearance to Prakasham Khani Opencast Coal Mine (Amalgamation of Manuguru OC II Expansion & Manuguru OC IV Extension) of 9.75 MTPA capacity in mine lease area of 2402.40 ha. (2214.84 ha is Forest Land and 187.56 ha is Non Forest Land) located in Village & Mandal Manuguru, District Bhadrachari Kothagudem, (Telangana), under the provisions of Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the following terms & conditions / specific conditions: -*

- (i) *Compliance of all non/partial compliance observed by Ministry's Regional Office in Certified Compliance Report shall be completed in 2 years.*
- (ii) *Third party monitoring (by NEERI/CIMFR/IIT) for air quality shall be carried out at identified locations, both ambient and the process area, to arrive at impact of the proposed expansion.*
- (iii) *Top soil should be stored separately at marked area.*
- (iv) *Transportation of coal from Coal Handling Plant shall be through mechanized covered trucks for 5 years. No transportation by trucks after 5 years and proposed railway siding should be constructed without any delay.*
- (v) *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*
- (vi) *To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers.*
- (vii) *Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient fixed type 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.*
- (viii) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.*
 - (ix) Persons of nearby villages shall be given training on livelihood and skill development to make them employable.*
 - (x) Mining shall be carried out only by surface miners for the project and silo loading through in-pit conveyor should be installed to avoid road transportation in 5 years.*
 - (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) Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles*
 - (xiii) PP shall construct four number of percolation tanks (costing about Rs.24 lakhs) inside forest areas to provide drinking water during summer period to the wild animals.*
 - (xiv) PP shall follow all the recommendation of Scientific study on feasibility and stability of OB dumps*
 - (xv) Project proponent to plant 150,000 nos. of native trees with broad leaves along the transportation route in three years to prevent the effect of air pollution. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer.*
 - (xvi) The activities and fund provisions for CER shall be made as per the guidelines issued by the ministry regarding CER on 1st May, 2018.*
 - (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) The Project Proponent shall complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors. State Government shall ensure that the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department in strict compliance of judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.*
 - (xix) Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table. The intersecting ground water table can only be commence after conducting detailed hydrogeological study and necessary permission from the CGWA. The Report on six monthly basis on changes in Ground water level and quality shall be submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.*
 - (xx) Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of anti-snake venom*

including all other paramedical safeguards may be ensured before initiating the mining activities.

- (xxi) *Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled “Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area”.*
- (xxii) *The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.*
- (xxiii) *The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.*
- (xxiv) *Hon’ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs Union of India & Ors vide its judgement dated 8th January, 2020 has directed the Union of India to impose a condition in the mining lease and a similar condition in the environmental clearance and the mining plan to the effect that the mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. Compliance of this condition after the mining activity is over at the cost of the mining lease holders/Project Proponent”. The implementation report of the above said condition shall be sent to the Regional Office of the MoEFCC.*

Agenda 12

Tadkeshwar Opencast lignite mine Project 2.50 MTPA of Lignite and 1 MTPA of Limestone in an ML area 964.44 ha of M/s Gujarat Mineral Development Corporation located in District Surat, (Gujarat) – For Amendment in Environment Clearance

[Proposal No. IA/GJ/CMIN/159262/2020; F.No. J-11015/144/2020-IA. II(M)]

1.12.1 The proposal is for amendment/Corrigendum in Environment Clearance (EC) for Tadkeshwar Opencast lignite mine Project 2.50 MTPA of Lignite and 1 MTPA of Limestone in an ML area 964.44 ha of M/s Gujarat Mineral Development Corporation located in District Surat, (Gujarat).

1.12.2 The EAC during deliberation noted the following:

The proposal is for amendment/Corrigendum in Environment Clearance (EC) for Tadkeshwar Opencast lignite mine Project 2.50 MTPA of Lignite and 1 MTPA of Limestone in an ML area 964.44 ha of M/s Gujarat Mineral Development Corporation located in District Surat, (Gujarat).

Earlier, the environment clearance to the project was obtained under EIA Notification, 2006 vide Ministry's letter No J-11015/144/08-IA.II (M) dated 27th August 2010 for 2.5 MTPA OF LIGNITE AND 1 MTPA OF LIMESTONE in mine lease area of 964.44 ha. This is the case of amendment in EC (Corrigendum) pertaining to ultimate depth of Mining.

Total mining lease area as per block allotment is 964.44.01 ha Mining Plan (Including Progressive Mine Closure Plan) has been approved by the Ministry of Coal and Mines Coal Department New Delhi on 24/11/2009 Mine Plan 11/11/2013 (Mine Closer Plan).

Following are the submission of project proponent.

- As per EC letter it is mentioned as 'Ultimate working depth is 94 m.' However, the details provided in the documents like EIA & mine plan and mine closure (approved in April, 2009) submitted for the grant of EC shows that the ultimate depth on mine will be 135 m. Due to oversight, we could not identify the discrepancy in ultimate working depth and hence could not approach the Hon'ble EAC earlier.
- As per Page 01, Para. 2, line 2 of ToR letter vide no. J-11015/143/08-IA.II (M) dated 26th August 2008, "Total mineable reserve of lignite is 32.90 Million Tonne". As per Page 2, Para 2, line 12 in Environment Clearance No. J-11015/144/08-IA.II (M) Dated 27th August 2010, "Total OB accumulated is 13.33 Mm³ and an estimated 308.37 Mm³ of OB would be generated over the balanced life of mine."
- 32.90 mT mineable reserve of lignite mentioned in TOR is corresponding to 135 m ultimate working depth which is not possible with 94 m of ultimate working depth. Hence, while correction in ultimate working depth our mineable reserve of lignite mentioned in TOR will not change.
- OB quantity of 321.7 (308.37+13.33) Mm³ mentioned in EC is corresponding to 135 m ultimate working depth for 32.90 mT mineable reserve of lignite mentioned in TOR which is not possible with 94 m of ultimate working depth. Hence, while correction in ultimate working depth also our OB mentioned in EC will not change.
- Mineable reserve and OB are main parameters for mining. Both these values are mentioned in the official documents of MOEFCC i.e. TOR and EC. These values are correct and not getting changed with correction in ultimate working depth. This confirms that there is error in ultimate working depth which should be corrected as 135 m corresponding to the mineable reserve of lignite mentioned in TOR and OB mentioned in EC.

1.12.3 *The EAC after deliberations observed that project proponent did not check its EC letter from last 10 years and now approaching for correction in EC letter. PP is not well prepared for its justification of error. EAC desires that PP may provide further details about difference of production, OB generation and life of the mine with respect to 94 mt and 135 mts. Further, PP must bring earlier records of EAC deliberations, EIA Report (Including all annexures-*

questionnaire) to substantiate its claim. Also, it has been observed that PP has not yet obtained NOC from Central Ground Water Authority.

The proposal is **deferred** on above lines.

Agenda 13

Ghogha Surkha Opencast Lignite Mine (2.25 MTPA in 1355 ha) Khadsaliya- I Lignite Mine (1 MTPA in 711.42 ha) and Khadsaliya – II Lignite Mine (0.75 MTPA in 914.14 ha) of M/s Gujarat power Corporation Limited located in District Bhavnagar (Gujarat) - For extension of amendment in Environment Clearance – reg.

[IA/GJ/CMIN/157735/2020; F.No. J-11015/202/2010-IA.II(M)

1.13.1 The proposal is for extension in amendment in environment clearance granted by the Ministry vide its letter dated 24th December, 2014 to in favour of M/s Gujarat Power Corporation Limited for Ghogha Surka Lignite Mine of 2.25 MTPA in project area of 1355 ha and Khadsaliya-I (1 MTPA in 711.42.47 ha) & Khadsaliya-II Lignite Mine (0.75 MTPA in 914.14.92 ha) located in District Bhavanagar (Gajarat).

1.13.2 The EAC during deliberations noted the following:

The proposal is for extension in amendment in environment clearance granted by the Ministry vide its letter dated 24th December, 2014 to in favour of M/s Gujarat Power Corporation Limited for Ghogha Surka Lignite Mine of 2.25 MTPA in project area of 1355 ha and Khadsaliya-I (1 MTPA in 711.42.47 ha) & Khadsaliya-II Lignite Mine (0.75 MTPA in 914.14.92 ha) located in District Bhavanagar (Gajarat).

One of the specific conditions (xx) stipulated therein is as under:-

‘Lignite transportation from mine pits to lignite stack yard from where lignite after necessary blending shall be transported to adjacent pithead TPP by closed conveyor system has been envisaged.’

Amendment in Environment Clearance was granted by Ministry vide its letter dated 20th December, 2018 with revised specific condition as mentioned below:

‘Lignite from the stack yard of Ghogha-Surkha Mine to the Padwa Power Plant, may be transported by black topped road of 2.7 km for a period of 15 months i.e. upto June 2019. Meanwhile closed conveyor system shall be made operational for transportation of lignite after the stipulated period. For other mines namely Khadsaliya-I and Khadsaliya-II , the said condition shall continue.’

Now Project proponent has requested for extension in amended EC due to delay in acquisition of land for Survey No. 59 & Surface Right for Govt. Land for Survey No. 93. Also, the process of obtaining NOC for Government Land on Survey No 93 is in its final stages. Further, Force

Majeure situation aroused due to lockdown imposed by Govt. of India to control pandemic of COVID-19, since March 2020 and so PP is unable to work in last four months on the field for (a) Civil works - Construction of Piers & Buildings & (b) Mech work – Fabrication & Erection of Structural Work. Even pending work at manufacturing units (a) Mech – Manufacturing of Technological Conveyor System equipment like Apron Feeder, Conveyor belt, Pulley, Idlers & Rollers, etc and (b) Elect – Manufacturing of Transformers, Motors, Switchgears, Panels, etc. has also delayed due to the lockdown & return of labours. The comparison of status of various work undertaken as on in month of June 2019 & June 2020, shows that major of issues of acquiring (a) right of way on govt. land from Collector, Bhavanagar and (b) permission of road crossing from R&B Dept., are resolved. Also manufacturing, supply, construction & erection work is already taken up, which is proposed to be completed by end of May 2021 and its commissioning by end of June 2021.

Further, EAC also noted that PP could not apply for extension in amendment in EC due to issue of login ID and Password for PARIVESH Portal. PP requested to Ministry's Monitoring Cell, Member Secretary, MoEFCC for change in User ID & Password through letter & email on 11th November, 2019. After request to Joint Secretary, User ID and Password was changed in March, 2020. The reason for the delay is genuine may not be considered as intentionally delayed and non-compliance. Also, clarification on Ministry's Notification dated 21st May, 2020 is being pursued for better understanding of coal transportation through road.

1.13.3 *The EAC, after deliberations recommended the proposal for extension in amendment in Environment Clearance to Ghogha Surkha Opencast Lignite Mine (2.25 MTPA in 1355 ha) Khadsaliya- I Lignite Mine (1 MTPA in 711.42 ha) and Khadsaliya – II Lignite Mine (0.75 MTPA in 914.14 ha) of M/s Gujarat power Corporation Limited located in District Bhavnagar (Gujarat) for a further period upto 30th June, 2021. EAC also observed that no further extension shall be extended to project proponent if it fails to comply to implement the closed conveyor system for 100% reduction of coal transportation by roadways.*

- (i) 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*
- (ii) Third party monitoring (by NEERI/CIMFR/IIT/NITs) for air quality shall be carried out at identified locations, both ambient and the process area, to arrive at impact of the proposed expansion. The results along with the recommendation shall be presented before the EAC to assess the efficacy and adequacy of pollution control measures.*
- (iii) Mechanism for treating stored mine water shall be developed to avoid any ground and surface water contamination*
- (iv) Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles*
- (v) Project proponent to plant 100,000 nos. of native trees with broad leaves along the transportation route in three years to prevent the effect of air pollution. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer.*
- (vi) The Project Proponent shall comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors. State Government shall ensure that the entire compensation levied, if any, for illegal mining paid by the Project*

Proponent through their respective Department in strict compliance of judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.

- (vii) *Hon'ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs Union of India & Ors vide its judgement dated 8th January, 2020 has directed the Union of India to impose a condition in the mining lease and a similar condition in the environmental clearance and the mining plan to the effect that the mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.*

Agenda 1.14

Gondegaon Extension Opencast Coal Mine Project with capacity of 3.50 MTPA in ML Area of 791.40 ha M/s Western Coalfields Limited located in Gondegaon Village, Parseoni Tehshil, District Nagpur, (Maharashtra) - For Amendment in Environment Clearance [IA/MH/CMIN/157028/2020; F.No J – 11015/106/2009-IA.II (M)]

1.14.1 The proposal is for amendment in EC dated 9th March, 2020 of Expansion of Gondegaon Extension Opencast Coal Mine Project with capacity of 3.50 MTPA in ML Area of 791.40 ha M/s Western Coalfields Limited located in Gondegaon Village, Parseoni Tehshil, District Nagpur, (Maharashtra).

1.14.2 The EAC, during deliberations noted the following:

The proposal is for amendment in EC dated 9th March, 2020 of Expansion of Gondegaon Extension Opencast Coal Mine Project with capacity of 3.50 MTPA in ML Area of 791.40 ha M/s Western Coalfields Limited located in Gondegaon Village, Parseoni Tehshil, District Nagpur, (Maharashtra).

The proposal for amendment is without any change in the mining parameters or production capacity. The proposal is for including the activity of sand segregation from external OB dumps with capacity of 2000 m³/day along with regular coal mining activities. The sand segregation from OB is one of the new initiative for getting deliverables from the waste to resource from external OB dumps. Till date, major portion of OB is dumped on the surface and is of no use except for land degradation. This OB consists of alluvial soil, sandstone, clay, shale etc. The sand present in the OB is to be segregated within the Mining lease area for useful purpose. This sand segregation from OB is one of the new initiatives for converting waste to useful resources.

PP proposed to include sand segregation plant in the overall activity of the mine within the same lease area. Details regarding Mass balance of Coal production, OB excavation & Sand segregation (Peak excavation per year) year wise during the balance period of mine shall ensure that total excavation as per earlier EC remains the same as far as environmental impact is concerned after amendment.

Sand segregation plant is inbuilt in the project along the coal mining activities. The Capital of Rs 247.30 Lakhs as per 2018 PR and Revenue- @ Rs 6.00/tonne has been provisioned for Environment Management of the total mine including coal mining & sand segregation

An Escrow Account of Expn. of Gondagaon OC for mine closure activities has been opened against the existing provisions. The Mine closure corpus of Rs 4297.24 lakhs has been deposited in escrow account in 8 years period from 2012-13 to 2019-20.

The sand segregated from OB dumps can be one of the best alternatives of river sand. It will reduce the environment impacts on the river ecosystem. The segregated sand can be made available in all seasons and the cost of is cheaper than river sand mining.

The processed OB (sand) and the byproduct clay comes under Minor Minerals, hence permission for Commercial selling of Sand has been obtained from the Department of Revenue & Forests, Govt. of Maharashtra, Mumbai dated 24.12.2018 and subsequently from Office of the District Collector, Nagpur vide letter no Khani-1/karya-21/119/18-19 dated 15.01.

1.14.3 *The EAC after deliberations observed that utilisation of OB material for manufacturing of artificial sand/segregation of sand. Utilisation of OB material is a good concept. Further, amendment proposal by PP involves change in land use plan of mine, reclamation and reduction in OB dump and water usage. EAC desired the following:*

- *Project opponent to submit the Mass balance of Coal production, OB excavation & Sand segregation (Peak excavation per year) year wise during the balance period of mine.*
- *Revised Mine Plan including Mine Closure Plan (as per Ministry of Coal latest guidelines).*
- *Detail explanation of process of sand segregation plant with environment pollution mitigation measures.*
- *Impact on air quality due to generation of dust (rehandling of OB, fugitive dust from plant and transportation of product by trucks)*

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

Agenda 15

Pit head captive wet coal washery (1.8 MTPA in an area of 10.336 ha) Gare Palma IV/8 Coal mine M/s Ambuja Cement Limited located at Tehsil Tamnar District Raigarh, (Chhattisgarh) - For Extension in Environment Clearance – reg.

[Online Proposal No. IA/CG/CMIN/153935/2020; F.No J-11015/76/2010 -IA.II(M)]

1.15.1 The proposal is for amendment/extension of Environment Clearance (EC) dated 10th June, 2013 of Pit head captive wet coal washery (1.8 MTPA in an area of 10.336 ha) Gare Palma IV/8 Coal mine M/s Ambuja Cement Limited located at Tehsil Tamnar District Raigarh, (Chhattisgarh).

1.15.2 The EAC during deliberation noted the following:

The proposal is for amendment/extension of Environment Clearance (EC) dated 10th June, 2013 of Pit head captive wet coal washery (1.8 MTPA in an area of 10.336 ha) Gare Palma IV/8 Coal mine M/s Ambuja Cement Limited located at Tehsil Tamnar District Raigarh, (Chhattisgarh).

Earlier, EC to the project was granted by the Ministry under EIA Notification, 2006 vide Ministry's letter No J-11015/76/2010-IA.II (M) dated 10/06/2013 for 1.8 MTPA in mine lease area of 10.336 ha in favour of M/s Jayaswal Neco Ltd.

Ministry of Coal, vide Addendum No.1 dated 19th June, 2018 to the vesting order No.104/28/2015/NA dated 22nd April, 2015 under clause (b) of sub-rule (2) of rule 7 and sub-rule (1) of rule 13, has allotted the pit head captive wet coal washery of 1.8 MTPA in an area of 10.336 ha located in Gare Pelma-IV/8 Coal Mine in Tehsil Garghoda, District Raigarh (Chhattisgarh) in favour of M/s Ambuja Cements Limited

Accordingly, Environment Clearance dated 10th June, 2013 granted by the Ministry in favour of M/s Jayaswal Neco Ltd to pit head captive wet coal washery of 1.8 MTPA in an area of 10.336 ha located in Gare Pelma-IV/8 Coal Mine in Tehsil Garghoda, District Raigarh (Chhattisgarh) was transferred to M/s Ambuja Cements Limited on 1st April, 2019

PP has submitted that they were unable to get the consent to establishment to start the construction work for pit head captive wet coal washery as the matter of land acquisition could not be completed as per schedule. Now that all the cases related to land disputes have been disposed off on 8th April, 2019 by the Bilaspur High Court passing the final order for the compensation. The disbursement of approx. 94% of compensation has been done by SDM, Gharghoda (Raigarh) till 1st July, 2019. However the project could not be commissioned due to delay in land acquisition.

The proposal has been applied on 22nd May, 2020 which is within the validity period of EC dated 10th June, 2013.

As per Ministry's notification dated 29th April, 2015 regarding validity of environmental clearance and its extension, it states as below:-

(i) The "Validity of Environmental Clearance" is meant the period from which a prior environmental clearance is granted by the regulatory authority, or may be presumed by the applicant to have been granted under sub paragraph (iv) of paragraph 7 above, to the start of production operations by the project or activity, or completion of all construction operations in case of construction projects (item 8 of the Schedule), to which the application for prior environmental clearance refers. The prior environmental clearance granted for a project or activity shall be valid for a period of ten years in the case of River Valley projects (item 1(c) of the Schedule), project life as estimated by Expert Appraisal Committee or State Level Expert Appraisal Committee or District Level Expert Appraisal Committee subject to a maximum of thirty years for mining projects and seven years in the case of all other projects and activities.

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 the grant of Environment Clearance (EC).

1.15.3 The EAC after deliberations recommended the proposal for grant of extension/amendment of Environment Clearance dated 10th June, 2013 for a further period of 3 years from the date of issue of letter to Pit head captive wet coal washery (1.8 MTPA in an area of 10.336 ha) Gare Palma IV/8 Coal mine M/s Ambuja Cement Limited located at Tehsil Tamnar District Raigarh, (Chhattisgarh), under the provisions of Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the following terms & conditions / specific conditions:-

- (i) The project proponent shall obtain Consent to Establish/Operate from the State Pollution Control Board for the proposed peak capacity of 1.8 MTPA (Peak) prior to commencement of the production*
- (ii) Permission for ground water withdrawal shall be obtained from Central Ground Water Authority (CGWA), if applicable.*
- (iii) 100% water requirement for washery shall be met with mine water. No other source of water shall be used for washery operations*
- (iv) The washing technology so chosen should conform to 'Zero Liquid Discharge'.*
- (v) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.*
- (vi) For proper baseline air quality assessment, adequate monitoring stations in the downwind areas based on wind rose pattern of the area, shall be set up for collection of air quality data and air quality modeling.*
- (vii) Disposal of washery rejects shall only be in proposed CPP of the project proponent.*
- (viii) Thick green belt of 20 mts width to be provided around the washery to mitigate/check the dust pollution. A 3-tier avenue plantation should also be developed along vacant areas, storage yards, loading/transfer points, and also along internal roads/main approach roads.*
- (ix) Peripheral and inside road shall be made of Rigid Pavement.*

Agenda 16

Banardih Coal Mining Project of 12 MTPA (Peak) in mine lease area of 1818.10 ha of M/s. Patratu Vidyut Utapdan Nigam Limited (PVUNL) located in villages Ate, Banardih, Bari, Barwadih, Jagaldaga, Rampur, Sabano, Surli, Tota and Udaypura in Tehsil Latehar & Chandwa, District Latehar (Jharkhand)

[Online Proposal No. IA/JH/CMIN/160604/2020; F.No. J-11015/13/2020 - IA.II(M)]

1.16.1 The proposal is for TOR for Banardih Coal Mining Project of 12 MTPA peak capacity in mine lease area of 1818.10 ha of M/s. Patratu Vidyut Utapdan Nigam Limited (PVUNL) located in villages Ate, Banardih, Bari, Barwadih, Jagaldaga, Rampur, Sabano, Surli, Tota and Udaypura in tehsil Latehar & Chandwa, district of Latehar, (Jharkhand).

1.16.2 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 area is covered under Survey of India Topo Sheet No. F45A9 & F45A10 and is bounded by the geographical coordinates ranging from latitude 23° 43' 23.09" to 23° 45' 12.995" N and longitudes 84° 37' 19.791" to 84° 39' 55.045" E.
- (ii) Coal linkage of the project is with Patratu Super Thermal Power Project, for meeting the consumptive coal requirement.
- (iii) PVUNL is a subsidiary of NTPC Ltd. in joint venture with JBVNL (Govt. of Jharkhand enterprise).
- (iv) Project does not fall in the Critically Polluted Area (CPA), where the MOEF&CC's vide its OM dated 13th January, 2010 has imposed moratorium on grant of Environment Clearance (EC).
- (v) Employment generation approx. 1300 nos. is expected to be generated from the project.
- (vi) Banardih Coal Block located in Auranga Coal Field in Latehar District of State of Jharkhand. This block is allotted for captive mining for supply of coal to Patratu Super Thermal Power Project by Ministry of Coal, Government of India vide F.No.103/18/2015NA dated 25th June 2018 for a total area of 1818.10 ha.
- (vii) The project is reported to be beneficial in terms of production of coal for meeting the consumptive coal requirement of Patratu STPP and thereby reducing the gap in the demand supply of coal in PVUNL Power Station. It will also cater infrastructure development in nearby areas and improve education and health conditions through CSR activities.
- (viii) Total mining lease area as per block allotment is 1818 Ha. Mining Plan (Including Progressive Mine Closure Plan) for the block (excluding Western part) was prepared by M/s. United Exploration India Pvt. Ltd, Kolkatta (UEIPL) based on the Geological Report on Coal Exploration (2019) prepared by Department of Mines & Geology, GoJ on the partly explored block. The Mining Plan envisages a production capacity of 12 MTPA. Mining Plan has been submitted to MOC on 30.03.2020 for approval.
- (ix) The land usage pattern of the project is as follows:

Pre-mining land use details (in Hectares)

Sl. No.	Type		Area in ha
	Within ML		
1	Tenancy	Agricultural	739.89
		Settlements	
2	Government	Water Bodies/Tanks	496.60
		Roads	
3	Forest & Open scrubs		581.61
Sub - Total (I)			1818.10

Post Mining

S	Description	Land Use (Post Closure) (in Ha)
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N		Agricultural Land	Plantation	Water body	Public / Company uses	Forest Land (Returned)	Undisputed	Total
1.	Excavation							
2.	Back Filled Area	68.55	534.58			126.37		729.50
3.	Topsoil Dump		12.24					12.24
4.	Safety Zone		13.28					13.28
5.	Haul Road between quarries		6.25		4.50			10.75
6.	Road Diversion				5.60			5.60
7.	Settling Pond				0.90			0.90
8.	Road and Infrastructure Area		21.07		8.66	5.73		35.46
9.	Garland drains				7.63			7.63
10.	Undisturbed/Mini ng Rights for UG					398.90	603.84	1002.74
	Grand Total	68.55	587.42	0.00	27.29	531.00	603.84	1818.14

- (x) Total geological reserve reported in the mine lease area is 1234.99 MT (excluding blocked reserves) with 270.81 MT mineable reserve. Out of total mineable reserve of 270.81MT, 250.50 MT are available for extraction. Percent of extraction is 62.38%.
- (xi) 17 seams with thickness ranging from 0.5 Mtr – 68.40 Mtr are workable. Grade of coal is G-11 (4000-4300 Kcal/kg), stripping ratio 4.68 M³/T, while gradient is 25 to 45 degrees.
- (xii) Method of mining operations envisages by Mechanized Open Cast Mining with Surface Miner and Shovel-Dumper combination.
- (xiii) Life of mine is 30 years.
- (xiv) The project has 01 (one) external OB dump identified within the block over an area of 433 Ha accommodates 233.23 Mm³ of OB. 1 (one) of internal OB Dump in the de-coaled area of the mine over an area of 729.50 Ha with 922.73 Mm³ of OB is envisaged in the project.
- (xv) Total quarry area is 729.50 Ha out of which backfilling will be done in 729.50 Ha and no mine void will be created in the mine. Backfilled quarry area of 729.50 Ha shall be reclaimed with plantation.
- (xvi) Transportation of coal has been proposed by Dumper in mine pit head, from mine surface to ground bunker by Conveyor and from ground bunker to Rapid Loading Silo by Conveyors and from Silo, coal will be direct loading on Wagon.
- (xvii) Reclamation Plan in an area of Internal Dump 729.50 Ha, of green belt. In addition to this, an area included in the safety zone/rationalization area, has also been proposed for green belt development.
- (xviii) 581.61 ha of Forest Land has been reported to be involved in the project. Approval under the Forest (Conservation) Act, 1980 for diversion of 525.40 ha of Forest Land for non-forestry purposes has been applied vide online proposal No. FP/JH/MIN/46516/2020 dated 22.06.2020.

- (xix) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been reported within 10 km boundary of the project.
- (xx) The ground water level has been reported to be varying between 1 Mtr to 5 Mtr Below Ground Level (BGL). Total water requirement for the project is 11.25 MLD.
- (xxi) Application for obtaining the approval of the Central Ground Water Authority for permission to dewater ground water for Mining Industry will be submitted in due course.
- (xxii) Consent to Establish for the existing capacity will be obtained from the Jharkhand SPCB in due course.
- (xxiii) Rajdaha Nala and Bagdagga Nala are flowing within the coal block. Nala Diversion study in this regard will be carried out by a reputed organization and clearance for diversion of this nala will be obtained from Chief Engineer, Water Resources department, Govt of Jharkhand, Ranchi.
- (xxiv) Regular monitoring of ambient air quality will be carried out twice in a week during study period. The documented EIA report will be submitted to MOEF&CC.
- (xxv) No court cases, violation cases are pending against the project of the PP.
- (xxvi) The project does not involve violation of the EIA Notification, 2006 and amendment issued there under. The coal production from the mine will be commenced in FY 2022 - 23.
- (xxvii) The project will involve about 963 project affected peoples. R&R of the PAPs will be done as per approved R&R plan.
- (xxviii) Total cost of the project is Rs 6,750 (fully departmental) Crore. Cost of production will be determined in feasibility report. R&R plan cost will be incurred as per approved R&R Plan. Capital investment and recurring EMP expenditure during production stage will be as per final EIA/EMP.

1.16.3 The EAC during deliberations noted the following:-

The proposal is for TOR for Banardih Coal Mining Project of 12 MTPA peak capacity in mine lease area of 1818.10 ha of M/s Patratu Vidyut Utpadan Nigam Limited (PVUNL) located in villages Ate, Banardih, Bari, Barwadih, Jagaldaga, Rampur, Sabano, Surli, Tota and Udaypura in tehsil Latehar & Chandwa, district of Latehar, (Jharkhand).

Total mining lease area as per block allotment is 1818 Ha. Mining Plan (Including Progressive Mine Closure Plan) for the block (excluding Western part) was prepared by M/s. United Exploration India Pvt. Ltd, Kolkatta (UEIPL) based on the Geological Report on Coal Exploration (2019) prepared by Department of Mines & Geology, GoJ on the partly explored block.

The Mining Plan envisages a production capacity of 12 MTPA. Mining Plan has been submitted to MOC on 30.03.2020 for approval.

Diversion of Rajdaha Nala and Bagdagga Nala which are flowing within the coal block is proposed

Project involves 581.61 ha of Forest Land for non-forestry activity. Approval under the Forest (Conservation) Act, 1980 for diversion of 525.40 ha of Forest Land for non-forestry purposes has been applied vide online proposal No. FP/JH/MIN/46516/2020 dated 22.06.2020

1.16.4 The EAC after deliberation **recommended** the proposal for grant of Terms of Reference to Banardih Coal Mining Project of 12 MTPA peak capacity in mine lease area of 1818.10 ha of M/s Patratu Vidyut Utapdan Nigam Limited (PVUNL) located in villages Ate, Banardih, Bari, Barwadih, Jagaldaga, Rampur, Sabano, Surli, Tota and Udayapura in tehsil Latehar & Chandwa, district of Latehar, (Jharkhand), and specific conditions as below and as defined in the Standard ToR issued by this Ministry for such projects/activities under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto.

- (i) EAC sub-committee shall visit the site and submit its recommendations for the additional conditions to PP overall environment management of the mine.
- (ii) Public Consultation, including public hearing, shall be conducted through concerned SPCB as per the provisions/procedure contained in the EIA Notification, 2006 for information of the stakeholders about the present coal mining operations inviting comments and their redressal.
- (iii) Stage-I clearance for the entire forestland involved the project shall be obtained before making an application for the environmental clearance
- (iv) Clarification from District Forest Officer that mine does not falls under corridors of any National Park and Wildlife Sanctuary.
- (v) Wind rose pattern in the area should be reviewed and accordingly location of AAMSQ shall be planned by the collection of air quality data. Monitoring location for collecting baseline data should cover overall the 10 km buffer zone i.e. dispersed in 10 km buffer area.
- (vi) Inpit conveyor belt with silo loading should be proposed and installed for transportation of coal till railway siding.
- (vii) Mitigation plan to avoid Human-Wildlife Conflict should be prepared scientifically with the help of Wildlife Experts
- (viii) No non-mining activity/ancillary activity shall be proposed in forest area
- (ix) Project proponent to prepare Environmental Cost Benefit Analysis for the project in EIA/EMP Report.
- (x) Permission for Diversion of nallah/water bodies lying in the project area from State Water Resource Department. Study the impact of diversion of nallah on nearby areas and villages.
- (xi) Permission for ground water withdrawal shall be obtained from Central Ground Water Authority (CGWA), if applicable.
- (xii) Fund allocation for Corporate Environment Responsibility (CER) shall be made as per Ministry's O.M. No. 22-65/2017-IA.III dated 1st May, 2018 for various activities therein. The details of fund allocation and activities for CER shall be incorporated in EIA/EMP report.
- (xiii) PP shall explore the possibilities of utilization of OB material for different purposes (in construction of roads, manufacture of artificial sand, aggregates, use for farmers etc.) and accordingly Plan shall be included in EIA/EMP Report
- (xiv) Details of court cases and the compliance status (if any)
- (xv) Impact of proposed project/activity on hydrological regime of the area shall be assessed and report be submitted. Hydrological studies as per GEC 2015 guidelines to be prepared and submitted
- (xvi) Heavy metals including other parameters in surface water quality (also of Ghagri river) shall be analyzed and provided in EIA Report.
- (xvii) Samples of Arsenic, Lead and Silica shall be analyzed in ambient air quality.

(xviii) PP shall provide an integrated mine production and mine reclamation plan of which the systematic and post mining land form management / land scape management of mining area, internal, and external dump area will be integral. Both internal and external dumps shall be regraded and reshaped to reduce its height as close to the original surface level as possible for better land use post mining activities.

Agenda 17

Expansion of Gare Palma IV/4 Coal Mine from 1.0 MTPA (0.56 MTPA from Opencast and 0.44 MTPA from Underground) to 1.5 MTPA through Opencast Method M/s Hindalco Industries Limited at Banjikhoh village, Tamnar Tehsil, District Raigarh (Chhattisgarh) – For Amendment in Terms of Reference – reg.

[Online Proposal No. IA/CG/CMIN/159250/2020; F.No. J-11015/183/2010-IA.II(M)]

1.17.1 The proposal is for amendment in Terms of Reference granted by Ministry vide its letter dated 8th January, 2020 to Expansion of Gare Palma IV/4 Coal Mine from 1.0 MTPA (0.56 MTPA from Opencast and 0.44 MTPA from Underground) to 1.5 MTPA through Opencast Method M/s Hindalco Industries Limited at Banjikhoh village, Tamnar Tehsil, District Raigarh (Chhattisgarh).

1.17.2 The EAC during deliberations noted the following:

The proposal is for amendment in Terms of Reference (ToR) granted by Ministry vide its letter dated 8th January, 2020 to Expansion of Gare Palma IV/4 Coal Mine from 1.0 MTPA (0.56 MTPA from Opencast and 0.44 MTPA from Underground) to 1.5 MTPA through Opencast Method M/s Hindalco Industries Limited at Banjikhoh village, Tamnar Tehsil, District Raigarh (Chhattisgarh).

One of the conditions specified in ToR is as below:

4 (x) To know the effect on ecosystem services available in the said mining area and assessment of carrying capacity of the extant ecology therein, study shall be carried out by any reputed institution

PP has requested to consider deferment of the study till the pandemic is over and conditions are normalised.

Further, PP has submitted the following:-

- The work order for conducting mentioned study has been issued to IIT-BHU by Hindalco. IIT-BHU could not start the study due to outbreak of Covid-19 pandemic.
- IIT BHU have formally requested HIL for extension of the timeline for conducting the study due to continued severity of the COVID-19 situation (copy of the letter with Ref. No.: Min/ AJ/2020-21/ dated 12th August, 2020 from IIT BHU has been presented).
- HIL will undertake to conduct the study as soon as the pandemic situation improves and the related restriction are lifted.
- The project proponent will also undertake to abide by all the recommendations of the stu
- Similar information on the study will be shared during the public hearing if required.

- All other conditions mentioned in the TOR for submission of EIA/EMP to SPCB for carrying out the further process is complete.
- The further process is stalled only due to delay in this particular study. Acceptance of the above request will enable the other processes to be carried out by the State Government so as to come to EAC for the final grant of EC.
- Delay in grant of EC will consequently delay the execution of the whole project and commencement of coal production as per approved Mining Plan causing revenue loss to the state exchequer also.

1.17.3 *The EAC, after deliberations, observed that study of carrying capacity and ecosystem services is noteworthy/major study as the mining is in Gare-Palma area where various other coal mines are operating. However, conducting this study during Covid pandemic and since the project has been allotted to IIT-BHU which is at far distance from site is really difficult. The study requires in-situ monitoring and interpretation of data and may not be possible currently. Also, project proponent has committed to conduct and complete the study and report of the same shall be furnished prior to appraisal of EAC for grant of Environment Clearance. In view of this, EAC recommends the amendment in ToR conditions for deferment of conducting the study till the situation of Covid Pandemic normalises with following terms and conditions:*

- *Project proponent shall submit legal undertaking to complete and submit the study report prior to appraisal of proposal for Environment Clearance to EAC.*
- *The recommendation/mitigation measures proposed in the study report (Ecosystem and Carrying Capacity) shall be communicated to local people through panchayats and District Headquarter.*

The meeting ended with thanks to the Chair.

Annexure-I

Standard EC Conditions for Coal Mining Project (Opencast mining):

All the projects recommended for grant of environmental clearance by the EAC shall also comply with the following Standard EC conditions as per Ministry's circular issued from time to time:

- (a) Statutory compliance**
- (i) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
 - (ii) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
 - (iii) The project proponent shall prepare a Site-Specific Conservation Plan / Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan/Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report (in case of the presence of schedule-I species in the study area).

- (iv) The project proponent shall obtain Consent to Establish/Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.
- (v) The project proponent shall obtain the necessary permission from the Central Ground Water Authority.
- (vi) Solid/hazardous waste generated in the mines needs to be addressed in accordance to the Solid Waste Management Rules, 2016/Hazardous & Other Waste Management Rules, 2016.

(b) Air quality monitoring and preservation

- (i) Continuous ambient air quality monitoring stations as prescribed in the statute be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM₁₀, PM_{2.5}, SO₂ and NO_x. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.
- (ii) The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.
- (iii) Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water/mist sprinkling/rain gun etc shall be carried out in critical areas prone to air pollution (with higher values of PM₁₀/PM_{2.5}) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.
- (iv) The transportation of coal shall be carried out as per the provisions and route envisaged in the approved Mining Plan or environment monitoring plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.
- (v) Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.
- (vi) Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.
- (vii) Coal handling plant shall be operated with effective control measures w.r.t. various environmental parameters. Environmental friendly sustainable technology should be implemented for mitigating such parameters.

(c) Water quality monitoring and preservation

- (i) The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board.
- (ii) The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No.J-20012/1/2006-IA.11 (M) dated 27th May, 2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
- (iii) Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.
- (iv) Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.
- (v) Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.
- (vi) Catch and/or garland drains and siltation ponds in adequate numbers and appropriate size shall be constructed around the mine working, coal heaps & OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be properly consolidated/ compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. The drains/ ponds so constructed shall be regularly de-silted particularly before onset of monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper settling of silt material. The water so collected in the sump shall be utilised for dust suppression and green belt development and other industrial use. Dimension of the retaining wall constructed, if any, at the toe of the OB dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the dump and adjacent field/habitation/water bodies.
- (vii) Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) after due treatment conforming to the specific requirement (standards).
- (viii) Industrial waste water generated from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed under the standards prescribed under Water Act 1974 and Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Adequate ETP /STP needs to be provided.
- (ix) The water pumped out from the mine, after siltation, shall be utilized for industrial purpose viz. watering the mine area, roads, green belt development *etc.* The drains shall be regularly desilted particularly after monsoon and maintained properly.
- (x) The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations, considering the presence of river/rivulet/pond/lake etc, shall be prepared and implemented by the project proponent.

The surface drainage plan and/or any diversion of natural water courses shall be as per the approved Mining Plan/EIA/EMP report and with due approval of the concerned State/GoI Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved Mining Plan and as per the permission of DGMS or any other authority as prescribed by the law.

- (xi) The project proponent shall take all precautionary measures to ensure riverine/riparian ecosystem in and around the coal mine up to a distance of 5 km. A riverine/riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.

(d) Noise and Vibration monitoring and prevention

- (i) Adequate measures shall be taken for control of noise levels as per Noise Pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.
- (ii) Controlled blasting techniques shall be practiced in order to mitigate ground vibrations, fly rocks, noise and air blast etc., as per the guidelines prescribed by the DGMS.
 - (i) The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

(e) Mining Plan

- (i) Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.
- (ii) Mining shall be carried out as per the approved mining plan(including Mine Closure Plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).
- (iii) No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980.
 - (ii) Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.

(f) Land reclamation

- (i) Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change(MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).
- (ii) The final mine void depth should preferably be as per the approved Mine Closure Plan, and in case it exceeds 40 m, adequate engineering interventions shall be provided for sustenance of aquatic life therein. The remaining area shall be backfilled and covered with thick and alive top soil. Post-mining land be rendered usable for agricultural/forestry purposes and shall be diverted. Further action will be treated as specified in the guidelines

for Preparation of Mine Closure Plan issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.

- (iii) The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conformity with the “during mining”/”post mining” land-use pattern, which is an integral part of the approved Mining Plan and the EIA/EMP submitted to this Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the MOEFCC/RO.
- (iv) Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3rd November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, along with fly ash for external dump of overburden, backfilling of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.
- (v) Further, it may be ensured that as per the time schedule specified in mine closure plan it should remain live till the point of utilization. The topsoil shall temporarily be stored at earmarked site(s) only and shall not be kept unutilized. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be stabilised with native grass species to prevent erosion and surface run off. The other overburden dumps shall be vegetated with native flora species. The excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change/ Regional Office.
- (vi) The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

(g) Green Belt

- (i) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered/endemic flora/fauna, if any, spotted/reported in the study area. The Action plan in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.
- (ii) Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the mine lease area as soon as possible. The green belt comprising a mix of native species (endemic species should be given priority) shall be developed all along the major approach/ coal transportation roads.

(h) Public hearing and Human health issues

- (i) Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & it's RO on six-monthly basis.
- (ii) The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged

in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, as amended time to time.

- (iii) Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
- (iv) Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.
- (v) The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

(i) Corporate Environment Responsibility

- (i) The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No.22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- (ii) The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violation of the environmental/forest/wildlife norms/conditions and/or shareholders/stake holders.
- (iii) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
- (iv) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- (v) Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

(j) Miscellaneous

- (i) The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- (ii) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

- (iii) The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- (iv) The project proponent shall monitor the criteria pollutants level namely; PM₁₀, SO₂, NO_x (ambient levels) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- (v) The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- (vi) The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.
- (vii) The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- (viii) The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
- (ix) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- (x) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- (xi) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change.
- (xii) Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- (xiii) The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- (xiv) The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- (xv) The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- (xvi) The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

Standard EC Conditions for Coal Mining Project (Underground mining):

All the projects recommended for grant of environmental clearance by the EAC shall also comply with the following Standard EC conditions as per Ministry's circular issued from time to time:

I. Statutory compliance:

- (i) The Environmental clearance shall be subject to orders of Hon'ble Supreme Court of India, Hon'ble High Courts, NGT and any other Court of Law, from time to time, and as applicable to the project
- (ii) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
- (iii) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- (iv) The project proponent shall prepare a Site-Specific Conservation Plan / Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (incase of the presence of schedule-I species in the study area)
- (v) The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.
- (vi) The project proponent shall obtain the necessary permission from the Central Ground Water Authority.
- (vii) Solid waste/hazardous waste generated in the mines needs to addressed in accordance to the Solid Waste Management Rules, 2016 / Hazardous & Other Waste Management Rules, 2016

II. Air quality monitoring and preservation

- i. Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely particulates, SO₂ and NO_x. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive receptors in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, *etc.* to be carried out at least once in six months. Online ambient air quality monitoring station/stations may also be installed in addition to the regular air monitoring stations as per the requirement and/or in consultation with the SPCB
- ii. The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.
- iii. Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water sprinkling/rain gun/mist sprinkling *etc.*, shall be carried out in critical areas prone to air pollution with higher level of particulate matter all through the coal transport roads, loading/unloading and

transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.

- iv. Major approach roads shall be black topped and properly maintained.
- v. The transportation of coal shall be carried out as per the provisions and route proposed in the approved mining plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed that the impact of sound, dust and accidents could be appropriately mitigated.
- vi. Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.
- vii. Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.
- viii. Coal handling plant shall be operated with effective control measures w.r.t. various environmental parameters. Environmental friendly sustainable technology should be implemented for mitigating such parameters.

III. Water quality monitoring and preservation

- i. The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board.
- ii. The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J-20012/1/2006-IA.11 (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
- iii. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.
- iv. Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.
- v. Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.
- vi. The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the mine. The embankment constructed along the river/nallah boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side, stabilized with plantation so as to withstand the peak water pressure preventing any chance of mine inundation.

- vii. Garland drains (of suitable size, gradient and length) around the critical areas i.e. mine shaft and low lying areas, shall be designed keeping at least 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. The sump capacity shall also provide adequate retention period to allow proper settling of silt material of the surface runoff
- viii. The water pumped out from the mine, after siltation, shall be utilized for industrial purpose viz. watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.
- ix. Industrial waste water from coal handling plant and mine water shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made thereunder, and as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluent. Sewage treatment plant of adequate capacity shall be installed for treatment of domestic waste water.
- x. Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.
- xi. The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations shall be prepared, considering the presence of any river/rivulet/pond/lake etc., with impact of mining activities on it, and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the provisions of the approved Mining Plan/ EIA-EMP submitted to this Ministry and the same should be done with due approval of the concerned State/GoI Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved mining plan and as per the permission of DGMS.
- xii. The project proponent shall take all precautionary measures to ensure reverian/ riparian ecosystem in and around the coal mine upto a distance of 5 km. A reverian /riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.

IV. Noise and Vibration monitoring and prevention

- i. Adequate measures shall be taken for control of noise levels below 85 dB(A) in the work environment. Workers engaged in underground mining operations, operation of HEMM, etc. shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms/guidelines in this regard. Progress in usage of such accessories to be monitored. Adequate awareness programme for users to be conducted.
- ii. The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

V. Mining Plan

- i. Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.
- ii. No change in mining method *i.e.* UG to OC, calendar programme and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC).

- iii. Mining shall be carried out as per the approved mining plan (including mine closure plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).
- iv. Underground work place environmental conditions shall be rendered ergonomic and air breathable with adequate illumination in conformance with DGMS standards.
- v. No mining activity shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980 and also adhering to The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 read with provisions of Indian Forest Act, 1927.
- vi. Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.

VI. Land reclamation

- i. Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change(MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).
- ii. Post-mining land be rendered usable for agricultural/forestry purposes and shall be handed over to the respective State Government, as specified in the Guidelines for Preparation of Mine Closure Plan, issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.
- iii. Regular monitoring of subsidence movement on the surface over and around the working areas and its impact on natural drainage pattern, water bodies, vegetation, structure, roads and surroundings shall be continued till movement ceases completely. In case of observation of any high rate of subsidence beyond the limit prescribed, appropriate effective mitigation measures shall be taken to avoid loss of life and materials. Cracks should be effectively plugged in with ballast and clay soil/suitable material.
- iv. Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3rd November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, alongwith fly ash for external dump of overburden, backfilling or stowing of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.
- v. A separate team for subsidence monitoring and surface mitigation measures shall be constituted and continuous monitoring & implementation of mitigation measures be carried out.
- vi. Thorough inspection of the mine lease area for any cracks developed at the surface due to mining activities below ground shall be carried out to prevent inrush of water in the mine.
- vii. Native tree species shall be selected and planted over areas affected by subsidence.
- viii. The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

VII. Green Belt

- i. The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered flora/fauna, if any, spotted/reported in the study

area. Action plan, in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.

- ii. Greenbelt, consisting of three-tier plantation, of width not less than 7.5 m, shall be developed all along the mine lease area in a phased manner. The green belt comprising of a mix of native species shall be developed all along the major approach roads/ coal transportation roads.

VIII. Public hearing and Human health issues

- i. Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored.
- ii. The Project Proponent shall undertake Occupational Health survey for initial and Periodical medical examination of the workers engaged in the Project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS Circulars. Besides carrying out regular periodic health check-up of their workers, 20% of the workers engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any.
- iii. Personnel (including outsourcing employees) working in dusty areas shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
- iv. Skill training as per safety norms specified by DGMS shall be provided to all workmen including the outsourcing employees to ensure high safety standards in mines.
- v. Effective arrangement shall be made to provide and maintain at suitable points conveniently situated, a sufficient supply of drinking water for all the persons employed.
- vi. Implementation of Action Plan on the issues raised during the Public Hearing shall be ensured. The Project Proponent shall undertake all the tasks as per the Action Plan submitted with budgetary provisions during the Public Hearing. Land oustees shall be compensated as per the norms laid out R&R Policy of the Company/ or the National R&R Policy/ R&R Policy of the State Government, as applicable
- vii. The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

IX. Corporate Environment Responsibility

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- v. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

X. Miscellaneous

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- v. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vi. The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
- vii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- ix. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- x. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

- xiii. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xiv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- xv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Standard EC Conditions for Coal Washery Project

I. Statutory compliance:

- (i) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
- (ii) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- (iii) The project proponent shall prepare a Site-Specific Conservation Plan / Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (incase of the presence of schedule-I species in the study area)
- (iv) The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.
- (v) The project proponent shall obtain the necessary permission from the Central Ground Water Authority.
- (vi) Solid waste/hazardous waste generated in the washery needs to be addressed in accordance to the Solid Waste Management Rules, 2016 / Hazardous & Other Waste Management Rules, 2016.
- (vii) Coal beneficiation practices shall be carried out under strict adherence to provisions of the Factories Act, 1957 and subordinate legislations made there under.

II. Air quality monitoring and preservation

- i. Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely particulates, SO₂ and NO_x. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive receptors in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc. carried out at least once in six months.
- ii. Continuous ambient air quality monitoring stations as prescribed in the statute be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM₁₀, PM_{2.5}, SO₂ and NO_x. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.
- iii. 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

- iv. All approach roads shall be black topped and internal roads shall be concreted. The roads shall be regularly cleaned. Coal transportation shall be carried out by covered trucks.
- v. Covered trucks shall be engaged for mineral transportation outside the washery upto the railway siding, shall be optimally loaded to avoid spillage en-route. Trucks shall be adequately maintained and emissions shall be below notified limits.
- vi. Facilities for parking of trucks carrying raw material from linked mine shall be created within the unit.
- vii. Vehicular emissions shall be kept under control and regularly monitored. The vehicles having 'PUC' certificate from authorized pollution testing centres shall be deployed for washery operations.
- viii. Hoppers of the coal crushing unit and other washery units shall be fitted with high efficiency bag filters/mist spray water sprinkling system shall be installed and operated effectively at all times of operation to check fugitive emissions from crushing operations, transfer points of closed belt conveyor systems and from transportation roads.
- ix. The raw coal, washed coal and coal wastes (rejects) shall be stacked properly at earmarked site (s) within stockyards fitted with wind breakers/shields. Adequate measures shall be taken to ensure that the stored mineral does not catch fire.
- x. The temporary reject sites should appropriate planned and designed to avoid air and water pollution from such sites.

III. Water quality monitoring and preservation

- i. The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board.
- ii. The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J-20012/1/2006-IA.11 (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for compliance.
- iii. Industrial waste water shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time.
- iv. The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the washery. The embankment constructed along the river/nallah boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side stabilised with plantation so as to withstand the peak water pressure preventing any chance of inundation.
- v. Heavy metal content in raw coal and washed coal shall be analysed once in a year and records maintained thereof.
- vi. The rejects should preferably be utilized in FBC power plant or disposed off through sale for its gainful utilization. If the coal washery rejects are to be disposed off, it should be done in a safe and sustainable manner with adequate compaction and post closure arrangement to avoid water pollution due to leachate from rejects and surface run off from reject dumping sites.

- vii. An Integrated Surface Water Management Plan for the washery area up to its buffer zone considering the presence of any river/rivulet/pond/lake *etc.* with impact of coal washing activities on it, shall be prepared, submitted to MoEFCC and implemented.
- viii. Waste Water shall be effectively treated and recycled completely either for washery operations or maintenance of green belt around the plant.
- ix. Rainwater harvesting in the washery premises shall be implemented for conservation and augmentation of ground water resources in consultation with Central Ground Water Board.
- x. No ground water shall be used for coal washing unless otherwise permitted in writing by competent authority (CGWA) or MoEFCC. The make-up water requirement of washery should not exceed 1.5 m³/tonne of raw coal.
- xi. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.
- xii. Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.
- xiii. The project proponent shall take all precautionary measures to ensure riverine/ riparian ecosystem in and around the coal mine up to a distance of 5 km. A riverine/riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government

IV. Noise and Vibration monitoring and prevention

- i. The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis
- ii. Adequate measures shall be taken for control of noise levels as per noise pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.

V. Coal beneficiation

- i. Coal stacking plan shall be prepared separately for raw coal, clean coal, middling and rejects.
- ii. Efforts should be made to reduce energy consumption by conservation, efficiency improvements and use of renewable energy.

VI. Green Belt

- i. Three tier greenbelt comprising of a mix of native species, of minimum 30 m width shall be developed all along the washery area to check fugitive dust emissions and to render aesthetic to neighbouring stakeholders. A 3-tier green belt comprising of a mix of native species or tree species with thick leaves shall be developed along vacant areas, storage yards, loading/transfer points and also along internal roads/main approach roads.
- ii. The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas

for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

VII. Public hearing and Human health issues

- i. Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & its RO on six-monthly basis.
- ii. The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any. as amended time to time.
- iii. Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
- iv. Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.
- v. The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

VIII. Corporate Environment Responsibility

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

- v. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

IX. Miscellaneous

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM₁₀, SO₂, NO_x (ambient levels) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vii. The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.
- viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- x. No change in coal beneficiation process and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC) with such conditions mentioned therein. No change in the maximum quantum of raw material feed per annum against the approved washery capacity shall be made
- xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiv.

- xv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xvi. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- xvii. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

ANNEXURE-IV

Generic ToR for coal washery

- i. Siting of washery is critical considering to its environmental impacts. Preference should be given to the site located at pit head; in case such a site is not available, the site should be as close to the pit head as possible and coal should be transported from mine to the washery preferably through closed conveyer belt to avoid air pollution.
- ii. The washery shall not be located in eco-sensitive zones areas.
- iii. The washery should have a closed system and zero discharge. The storm drainage should be treated in settling ponds before discharging into rivers/streams/water bodies.
- iv. A thick Green belt of about 50 m width should be developed surrounding the washery.
- v. A brief description of the plant alongwith a layout, the specific technology used and the

source of coal should be provided.

- vi. The EIA-EMP Report should cover the impacts and management plan for the project of the capacity for which EC is sought and the impacts of specific activities, including the technology used and coal used, on the environment of the area (within 10km radius), and the environmental quality of air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts for the rated capacity. Cumulative impacts for air and water should be a part of EIA in case coal mine, TPP and other washeries are located within 10km radius. The EIA should also include mitigative measures needed to minimize adverse environmental impacts.
- vii. A Study Area Map of the core zone as well as the 10km area of buffer zone showing major industries/mines and other polluting sources should be submitted. These maps shall also indicate the migratory corridors of fauna, if any and areas of endangered fauna; plants of medicinal and economic importance; any ecologically sensitive areas within the 10 km buffer zone; the shortest distance from the National Park/WL Sanctuary Tiger Reserve, etc. alongwith the comments of the Chief Wildlife Warden of the State Govt.
- viii. Data of one-season (non-monsoon) primary- base-line data on environmental quality of air (PM₁₀, PM_{2.5}, SO_x and NO_x, noise, water (surface and groundwater), soil be submitted.
- ix. The wet washery should generally utilize mine water only. In case mine water is not available, the option of storage of rain water and its use should be examined. Use of surface water and ground water should be avoided.
- x. Detailed water balance should be provided. The break-up of water requirement as per different activities in the mining operations vis-a-vis washery should be given. If the source of water is from surface water and/or ground water, the same may be justified besides obtaining approval of the Competent Authority for its drawl.
- xi. The entire sequence of mineral production, transportation, handling, transfer and storage of mineral and waste, if any, and their impacts on air quality should be shown in a flow chart with specific points where fugitive emissions can arise and specific pollution control/mitigative measures proposed to be put in place. The washed coal and rejects should be transport by train as far as possible. Road transport of washed coal and rejects should generally be avoided. In case, the TPP is within 10km radius, it should be through conveyer belt. If transport by rail is not feasible because of the topography of the area, the option for transport by road be examined in detail and its impacts along with the mitigation measures should be clearly brought out in EIA/EMP report.
- xii. Details of various facilities proposed to be provided in terms of parking, rest areas, canteen etc. to the personnel involved in mineral transportation, workshop and effluents/pollution load from these activities should be provided.
- xiii. Impacts of CHP, if any, on air and water quality should also be spelt out alongwith Action Plan.
- xiv. O.M.no.J-II0I3/25/2014-IA.I dated 11th August, 2014 to be followed with regard to CSR activities.
- xv. Details of Public Hearing, Notice(s) issued in newspapers, proceedings/minutes of Public Hearing, points raised by the general public and response/commitments made by the proponent along with the Action Plan and budgetary provisions be submitted in tabular form. If the Public Hearing is in the regional language, an authenticated English translation of the same should be provided. Status of any litigations/ court cases filed/pending, if any, against the project should be mentioned in EIA.

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

GENERIC TOR FOR AN OPENCAST COALMINE PROJECT for EC

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

ML/project area, the proposed route of diversion and its realignment should be shown in the map along with the status of the approval of the competent authority.

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

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

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

- (xii) Break-up of lease/project area as per mining plan should be provided.
- (xiii) Impact of changes in the land use due to the project if the land is predominantly agricultural land/forestland/grazing land, should be provided.
- (xiv) One-season (other than monsoon) primary baseline data on environmental quality - air (PM₁₀, PM_{2.5}, SO_x, NO_x and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil - along with one-season met data coinciding with the same season for AAQ collection period should be provided.
- (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 st Year)	5 th Year	10 th Year	20 th Year	24 th Year (end of mine life)*
1.	Backfilled Area(Reclaimed with plantation)					
2.	Excavated Area (not reclaimed)/void					
3.	External OB dump Reclaimed with plantation)					
4.	Reclaimed Top soil dump					
5.	Green Built Area					
6.	Undisturbed area (brought under plantation)					
7.	Roads (avenue plantation)					
8.	Area around buildings and Infrastructure					
	TOTAL					

* As a representative example

Table 2 : Stage Wise Cumulative Plantation

S. No.	YEAR*	Green Belt	External Dump	Backfilled Area	Others(Undisturbed Area/etc)	TOTAL
1.	1 st year					
2.	3 rd year					
3.	5 th year					
4.	10 th year					
5.	15 th year					
6.	20 th year					
7.	25 th year					
8.	30 th year					
9.	34 th year(end of mine life)					
10.	34- 37 th Year (Post-mining)					

* As a representative example

(xxxix) 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					

- (xxxix) 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.
- (xxxix) 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.
- (xxxix) Risk Assessment and Disaster Preparedness and Management Plan should be provided.
- (xxxix) Integration of the Env. Management Plan with measures for minimizing use of natural resources - water, land, energy, etc. should be carried out.
- (xxxix) Cost of EMP (capital and recurring) should be included in the project cost and for progressive and final mine closure plan.
- (xxxix) 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.
- (xxxix) 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.
- (xliii) 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.
- (xliv) Copy of clearances/approvals such as Forestry clearances, Mining Plan Approval, mine closer plan approval. NOC from Flood and Irrigation Dept. (if req.), etc. wherever applicable.

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

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

GENERIC TORs FOR AN UNDERGROUND COALMINE PROJECT

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

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

Area under Surface Rights

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

- (viii) Study on the existing flora and fauna in the study area (10km) should be carried out by an institution of relevant discipline. The list of flora and fauna duly authenticated separately for the core and study area and a statement clearly specifying whether the study area forms a part of the migratory corridor of any endangered fauna should be given. If the study area has endangered flora and fauna, or if the area is occasionally visited or used as a habitat by Schedule-I species, or if the project falls within 15 km of an ecologically sensitive area, or used as a migratory corridor then a Comprehensive Conservation Plan along with the appropriate budgetary provision should be prepared and submitted with EIA-EMP Report; and comments/observation from the CWLW of the State Govt. should also be obtained and furnished.
- (ix) Details of mineral reserves, geological status of the study area and the seams to be worked, ultimate working depth and progressive stage-wise working scheme until the end of mine life should be provided on the basis of the approved rated capacity and calendar plans of production from the approved Mining Plan. Geological maps and sections should be included. The Progressive mine development and Conceptual Final Mine Closure Plan should also be shown in figures. Details of mine plan and mine closure plan approval of Competent Authority should be furnished for green field and expansion projects.
- (x) Details of mining methods, technology, equipment to be used, etc., rationale for selection of specified technology and equipment proposed to be used vis-à-vis the potential impacts should be provided.
- (xi) Impact of mining on hydrology, modification of natural drainage, diversion and channeling of the existing rivers/water courses flowing through the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon.
- (xii) One-season (other than monsoon) primary baseline data on environmental quality - air (PM₁₀, PM_{2.5}, SO_x, NO_x and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil - along with one-season met data coinciding with the same season for AAQ collection period should be provided.
- (xiii) Map (1: 50, 000 scale) of the study area (core and buffer zone) showing the location of various sampling stations superimposed with location of habitats, other industries/mines, polluting sources, should be provided. The number and location of the sampling stations in

both core and buffer zones should be selected on the basis of size of lease/project area, the proposed impacts in the downwind (air)/downstream (surface water)/groundwater regime (based on flow). One station should be in the upwind/upstream/non-impact/non-polluting area as a control station. The monitoring should be as per CPCB guidelines and parameters for water testing for both ground water and surface water as per ISI standards and CPCB classification wherever applicable. Observed values should be provided along with the specified standards.

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

occupational health and safety of the personnel and manpower for the mine should be submitted.

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

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

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

		If more than one provide details of each FC			
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GENERIC TORs FOR AN OPENCAST-CUM-UNDERGROUND COALMINE PROJECT

- (i) An EIA-EMP Report would be prepared for a combined peak capacity ofMTPA for OC-cum-UG project which consists of MTPA in an ML/project area of ha for OC and MTPA for UG in an ML/project area of ha based on the generic structure specified in Appendix III of the EIA Notification 2006.
- (ii) An EIA-EMP Report would be prepared for..... MTPA rated capacity to cover the impacts and environment management plan for the project specific activities on the environment of the region, and the environmental quality encompassing air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts including prediction modeling for..... MTPA of coal production based on approved project/Mining Plan for.....MTPA. Baseline data collection can be for any season (three months) except monsoon.
- (iii) The ToRs prescribed for both opencast and underground mining are applicable for opencast – cum-underground mining.

9/14/2020

Email

Email

munna.shah@gov.in

Re: Revised Draft MoM of 1st EAC held on 17-18 August, 2020

From : shuklanp55@gmail.com

Mon, Sep 14, 2020 12:58 PM

Subject : Re: Revised Draft MoM of 1st EAC held on 17-18
August, 2020

To : Munna Kumar Shah <munna.shah@gov.in>

Dear Dr Munna ji
Minutes of meeting are approved as proposed.

Regards
Dr N P Shukla

Sent from my iPhone