

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

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**SUMMARY RECORD OF 56<sup>th</sup> MEETING OF THE EXPERT APPRAISAL COMMITTEE  
FOR ENVIRONMENTAL APPRAISAL OF COAL MINING PROJECTS CONSTITUTED  
UNDER THE EIA NOTIFICATION, 2006, HELD ON 30<sup>th</sup> JUNE, 2020.**

The 56<sup>th</sup> meeting of the Expert Appraisal Committee (EAC) for coal mining projects was held on 30<sup>th</sup> June, 2020 through video conferencing with support NIC team due to Covid-19 lockdown. The following members were present:

1.	Dr. Navin Chandra	-	Chairman
2.	Shri G.P. Kundargi	-	Member
3.	Dr. N. P. Shukla	-	Member
4.	Shri. S. D. Vora	-	Member
5.	Dr. J.K. Pandey	-	Member
6.	Shri S.K Paliwal	-	Member
7.	Shri N.S. Mondal	-	Member
8.	Shri N. Mohan Karnat	-	Member
9.	Shri Manoj Kr Gangeya, Director, MoEFCC	-	Member Secretary
MoEFCC			
10.	Shri Munna Kumar Shah, Scientist 'D'	-	MoEFCC

**Confirmation of Minutes of 55<sup>th</sup> meeting of EAC**

No comment was made from any member of the committee on the minutes of the 55<sup>th</sup> meeting of the EAC held on during 29<sup>th</sup> May, 2020, therefore the Minutes of the Meeting (MoM) of 55<sup>th</sup> meeting was confirmed in the presence of the members who were present in the 56<sup>th</sup> meeting of the EAC (coal mining).

**Agenda No. 56.1**

**Suliyari Coal Mining Project of 5.0 MTPA of M/s Andhra Pradesh Mineral Development Corporation Limited in mine lease area of 1298 ha located in Singrauli Coalfields, Tehsil Sarai, District Singrauli (Madhya Pradesh) –For Environmental Clearance – reg.**

**[Online Proposal No. IA/MP/CMIN/73904/2018; F.No. J-11015/35/2018-IA.II (M)]**

**56.1.1** The proposal is for Environment Clearance (EC) for Suliyari Coal Mining Project of 5.0 MTPA capacity of M/s Andhra Pradesh Mineral Development Corporation Limited in mine lease area

of 1298 ha located in village(s) Aamdand, Amraikhoh, Bajaudi, Belwar, Dongari, Dhirauli, Jhalari, Majhaulipath and Seerswah, Tehsil Sarai, District Singrauli (Madhya Pradesh). ToR for the proposal was granted by the Ministry on 3<sup>rd</sup> July, 2018.

Earlier the proposal was considered by EAC in its 51<sup>st</sup> meeting held on 5<sup>th</sup> December, 2019 and 54<sup>th</sup> meeting held on 17<sup>th</sup> April, 2020 and noted the following points.

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 next 56<sup>th</sup> EAC meeting.

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

Sr. No.	Observations of EAC	Compliance / Submission of Project Proponent
1	Letter of Intent for the project area has not been submitted by PP from concerned state government authorities and therefore shall be submitted	<ul style="list-style-type: none"> <li>Ministry of Coal (MoC) vide vesting order F. No. 103/10/2016/NA dated 29.09.2016 allocated Suliyari Coal Block to APMDC under provisions of the Coal Mines (Special Provisions) Act, 2015.</li> <li>Directorate of Geology and Mining, Government of Madhya Pradesh has recommended the proposal and requested Ministry of Coal to grant previous approval for further grant of mining lease vide letter no. F-3-56/2018/12/1 dated 19.09.2018.</li> <li>MoC granted previous approval vide its letter dated 31.10.2019</li> <li>Except above mentioned letters, no such Letter of Intent is issued for Mining Lease by State Government as per prevailing statute.</li> </ul>
2	Incorrect details filled on PARIVESH Portal regarding status of Forest Clearance (which states that Application for Forest Clearance yet to be submitted) shall be corrected.	<ul style="list-style-type: none"> <li>The issue of incorrect status of Forest Clearance is due to linking problem in PARIVESH Portal for which APMDC had submitted several representations to MoEFCC and NIC. Though, in PARIVESH portal the current FC status is showing to be "Pending with User Agency"</li> <li>Please refer APMDC's letter to MoEF&amp;CC dated 11<sup>th</sup> April 2020, email from EIA Consultant-MECON LTD to NIC as well as IA Division dated 6<sup>th</sup> April 2020 and APMDC's EDS reply letter to MoEF&amp;CC dated 6<sup>th</sup> April 2020</li> </ul>

		<ul style="list-style-type: none"> <li>• Present status of FC: <ul style="list-style-type: none"> <li>○ FC proposal is under consideration at MoEF&amp;CC for Stage-I approval.</li> <li>○ The Forest Diversion Proposal has been approved by Madhya Pradesh Govt. and recommended to MoEF&amp;CC, Govt. of India vide letter no. FP/MP/MIN/28619120171376 dated 25<sup>th</sup> January 2020</li> <li>○ MoEF&amp;CC has recommended regional office of MoEF&amp;CC for site inspection vide F. No.8-0212020-FC dated 04<sup>th</sup> March 2020</li> </ul> </li> </ul> <p>However, the site inspection is pending due to Covid-19 related lockdown.</p>
3	<p>Proposed site visit of EAC sub-committee for the proposed diversion of Hurdul nallah/river (Perennial tributary of river) which falls into Gopad River. There are various nalla such as Hurdul Nala, Amta nala, Chhtraha nala, Bibiao nala, Jhana nala, Sulkhia Nala including Mahan and Gopad river in the buffer zone. Mahan river is 100 m from the confluence of Hurdul Nallah in the north of the block. Therefore, comprehensive River Protection Plan with detailed study has to be presented including the recommendation of site visit to avoid pollution in the river due to mining activity.</p>	<p>The following is being submitted explaining that streams other than Hurdul do not fall within Suliyari mine catchment and hence are not impacting the Gopad river.</p> <ul style="list-style-type: none"> <li>• Water Resource Department (WRD), Singrauli (Madhya Pradesh) vide its letter no. 3827/Technical/Singrauli/ 2019-20 dated 16th December 2019 has given a conditional NOC for diversion of Hurdul Nala. APMDC has submitted detail design, drawing and DPR for Nala diversion to WRD. As per condition of the NOC, site inspection of concerned officials from WRD shall be done during construction of Nala diversion.</li> <li>• The core zone (Suliyari Coal Block) drains into Hurdul nala which joins with Gopad River outside the core zone at a distance of about 9.7 km in west direction w.r.t. the ML area.</li> <li>• The other tributaries of Gopad river within the study area viz. Amta nala, Chhnaha nala, Bibiao nala, Sulkhia Nala are outside the catchment area of Hurdul nala. <b>The drainage system of Suliyari Coal Block has no bearing on these tributaries of Gopad river.</b></li> <li>• Impact of mine drainage and diversion of nala based on quality &amp; quantity has been done and submitted as Annexure- 7.3.2 of revised EIA/EMP report.</li> <li>• The proposed diversion of Hurdul nala is only</li> </ul>

		<p>for the stretch of nala which is flowing over the coal bearing area within Suliyari Coal Block. As the total coal block is located within the catchment area of Hurdul nala, thus the proposed diversion will not affect the quantity / flow of water draining into Gopad river at a distance of about 9.7 km in west direction w.r.t. the ML area.</p> <ul style="list-style-type: none"> <li>Moreover, sufficient protection measures including toe wall protection for the embankments has been proposed in the DPR as well as provisions for safety of mine and adjoining area in light of the construction of diversion channel is mentioned in Chapter-12 of the DPR.</li> </ul> <p>We welcome, visit of EAC subcommittee. However, it is requested to kindly relax EAC sub-committee site inspection due to ongoing Covid-19 pandemic lockdown and consider above reply for EC of Suliyari Coal Block. We will abide by the sub-committee recommendation when the visits take place.</p>
4	Stage-I Forest Clearance of 259.239 ha of forest land involved is pending and even if the proposal is recommended, EC will not be affective will Stage-I FC is granted	<ul style="list-style-type: none"> <li>Agreed. However, in view of the procedure laid down by MoEF&amp;CC, it is requested to kindly recommend EC for the project, APMDC is committed to submit Stage-I FC within stipulated timeline.</li> </ul>
5	Detailed timeline for construction of railway siding in mining lease including number of level crossing, IP points etc shall be provided as Member Secretary, Madhya Pradesh Pollution Control Board in its letter dated 22 <sup>nd</sup> October, 2019 has proposed 100% transportation of coal through rail line only	<ul style="list-style-type: none"> <li>Detailed Timeline for construction railway siding in mining lease enclosed</li> <li>Techno Economic Feasibility Report for Railway Siding prepared by RITES is enclosed as Appendix-1 of Annexure - 12. Technical details are indicated in page no. 18-19 of the TEFR.</li> <li>Further tentative timeline of 5 years has been submitted in presentation</li> </ul>
6	Singrauli Area being a Severely Pollution Area (SPA), PP needs to propose the mechanism for environment management/protection as per	<ul style="list-style-type: none"> <li>Proposed Suliyari coal mine is located in Singrauli district but the ML area is ~40km (aerial distance) from Singrauli coal mines of NCL and doesn't fall within the Severely Polluted Area, Singrauli (Madhya Pradesh).</li> </ul>

	Ministry's OM dated 31 <sup>st</sup> October, 2019.	<ul style="list-style-type: none"> <li>Nonetheless, as a Proactive Corporate Environmental Management measure, APMDC has submitted the mechanism for environment management/ protection as per Ministry's OM dated 31st October, 2019.</li> </ul>
7	Traffic Impact Assessment for coal transportation for mine to siding (12 km) for initial 5 years should include presence of habitation/population/households and likely impact of pollutants on them	<ul style="list-style-type: none"> <li>A metalled road is traversing through North-South in the proposed coal block. Gajra-Bahara railway station (existing nearest rail-head) is located at a distance of 12 km from the block.</li> <li>Existing traffic load is only 10% of the Design service volume capacity.</li> <li>Considering the maximum production of 5.0 MTPA and dispatch of coal for 330 working days per year by trucks (@25 tonnes); the increase in truck traffic is expected to be 1212 trucks/day (606 loaded and same number unloaded) i.e. ~33 trucks per hour (considering coal transportation for 18 hours per day).</li> <li>APMDC has requested MPRRDA for providing estimation of widening and strengthening of the road network proposed to be used for coal evacuation upto the nearest railway siding at Gajra-Bahra. MPRRDA has approved the proposal and subsequently issued a demand note, wherein Rs. 2055.80 Lakhs is for widening and strengthening of the road.</li> <li>The Level of Service (LOS) will be enhanced to "A" with the widening (10m-12m) and strengthening of the road proposed to be used for coal evacuation upto the nearest railway siding at Gajra-Bahra.</li> <li>Traffic Impact Assessment for coal transportation from ML to Gajra-Bahra Railway Siding (12 km) for initial 5 years is given in ADS</li> </ul>

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

The proposal is for environmental clearance for Suliari Coal Mining Project of 5.0 MTPA capacity of M/s Andhra Pradesh Mineral Development Corporation Limited in mine lease area of 1298 ha located in village(s) Aamdand, Amraikhoh, Bajaudi, Belwar, Dongari, Dhirauli, Jhalari, Majhaulipath and Seerswah, Tehsil Sarai, District Singrauli (Madhya Pradesh). ToR for the proposal was granted by the Ministry on 3<sup>rd</sup> July, 2018.

Public hearing for the project of 5 MTPA capacity in an area of 1298 ha was conducted on 30.08.2019 at Playground of Govt. High School, Majhailipath (core zone).

As per submission of PP, LoI is not required and Mining leases will be granted by State Government after PP obtains Forest and Environment Clearances.

The Stage-I Forest Clearance (FC) for 259.239 ha of forest land involved is yet to be obtained and EC will not be effective and issued to PP till Stage-I FC is granted and submitted to the Ministry.

As per PP, the drainage system of Suliyari Coal Block has no bearing on these tributaries of Gopad river, however, site visit of the project cannot be conducted due to Covid-19 situation in the country. Once Covid-19 normalises, the sub-committee may visit the site and recommend additional conditions, if required.

PP submitted the undertaking clarifying that Mahan River is flowing outside the study area (i.e. 10 km radius from the periphery of coal block) of Suliyari Opencast Coal Mine Block. The surface water sampling location mentioned in Page. No. 187 of the approved Mining Plan of Suliyari Opencast Coal Mine as Mahan River is typographical error. It should have been Sahabar nala.

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 in desired form along with report prepared and submitted by 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/her 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 proposal will be rejected and the Environmental Clearance, if granted, 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 for the grant of Environmental Clearance (EC) with conditions.

***56.1.4 The EAC, after detailed deliberation, recommended the proposal for grant of Environment Clearance to Suliyari Coal Mining Project of 5.0 MTPA capacity of M/s Andhra Pradesh Mineral Development Corporation Limited in mine lease area of 1298 ha located in village(s) Aamdand, Amraikhoh, Bajaudi, Belwar, Dongari, Dhirauli, Jhalari, Majhailipath and Seerswah, Tehsil Sarai, District Singrauli (Madhya Pradesh) for a period of 1 year, 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) *The project proponent shall obtain Consent to Establish/Operate from the State Pollution Control Boards for the proposed peak capacity of 5 MTPA (Peak) prior to commencement of the increased production.*
- (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. The results along with the recommendation shall be presented before the EAC to assess the efficacy and adequacy of pollution control measures.*
- (iii) *In view of Covid-19, visit to site can't take place as of now, therefore, the EAC sub-committee shall conduct a site visit within 1 year and may recommend the additional specific conditions, if need be, with regard to environment management and regarding water bodies and nallah etc.*
- (iv) *Confirmation on the claim by PP from District Forest Officer regarding distance of project site to Kaimur Wildlife Sanctuary, Sanjay Dubri Wildlife Sanctuary and Guru Ghasi Das (Sanjay) National Park and Tamorpingla Wildlife Sanctuary shall be obtained by PP.*
- (v) *No water from Hurdul Stream shall be used for any project activity*
- (vi) *Top soil should be stored separately at marked area.*
- (vii) *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.*
- (viii) *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*
- (ix) *To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers.*
- (x) *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.*
- (xi) *Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.*
- (xii) *Persons of nearby villages shall be given training on livelihood and skill development to make them employable.*
- (xiii) *Mechanism for treating stored mine water shall be developed to avoid any ground and surface water contamination*
- (xiv) *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.*
- (xv) *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.*
- (xvi) *The total industrial water demand (peak) in operation phase (@3135 m<sup>3</sup>/d) shall be met by utilizing treated mine discharge water. Additionally, ~60 m<sup>3</sup>/d of water discharged from vehicle washing area and pit head bath shall be re-used for dust suppression after settlement of solids*

*and separation of oil and grease through oil and grease trap. Also, about 120 m<sup>3</sup>/d of treated water from the township shall be re-used for irrigation of green belt development*

- (xvii) Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles*
- (xviii) 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.*
- (xix) The activities and fund provisions for CER shall be made as per the guidelines issued by the ministry regarding CER on 1<sup>st</sup> May, 2018.*
- (xx) 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.*
- (xxi) 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 2<sup>nd</sup> August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.*
- (xxii) 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.*
- (xxiii) 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.*
- (xxiv) 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".*
- (xxv) 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.*

- (xxvi) 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.*
- (xxvii) 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.*

**Additional Specific conditions as the area falls under the Severely Polluted Areas (SPAs)**

- (xxviii) CTE/CTO for the project shall be obtained from the SPCB as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974, and the SPCB shall follow the mechanism/protocol issued by the Ministry vide letter no. Q-16017/38/2018-CPA dated 24<sup>th</sup> October, 2019 while issuing the CTE/CTO for the project, for improvement of environmental quality in the area.*
- (xxix) Prior green belt of at least 5-10 m width shall be developed in more than 40% (in place of normal recommendation of EAC of 33%) of the total project area, mainly along the plant/mine periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.*
- (xxx) In addition, the project proponent shall develop greenbelt outside the plant premises such as avenue plantation, plantation in vacant areas, social forestry etc.*
- (xxxi) Monitoring of compliance of EC conditions may be submitted with third party audit every year.*
- (xxxii) The percentage the CER may be at least 1.5 times the amount given in the OM dated 1<sup>st</sup> May, 2018 recommended by the EAC and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.*
- (xxxiii) CEMS (Continues Emission Monitoring System) will be installed for the project which will be connected to CPCB and SPCB servers.*
- (xxxiv) Peripheral Green belt development inside R&R colony and Project township shall be developed.*
- (xxxv) Only 60t dumper for coal transportation to reduce number of trucks and 100t/150t dumper for OB handling shall be used till the development of railway siding (5 years).*
- (xxxvi) Ultra-Sonic Flow Meter shall be installed for measuring of quantity of effluent in ETP and STP. Continuous monitoring of effluent quality shall be done*

## **Agenda No. 56.2**

**Expansion of Coal Washery from 1.2 MTPA (Dry Process) to 3.6 MTPA (By Adding 2.4 MTPA through Wet Process) of M/s Maheshwari Coal Beneficiation and Infrastructure Pvt. Ltd located in village Parasda, Sirgitti Industrial Areas Tehsil & District Bilaspur (Chhattisgarh) - For Environmental Clearance – reg.**

**[Online Proposal No. IA/CG/CMIN/151149/2007; F. No. J-11015/82/2016-IA.II (M)]**

**56.2.1** The proposal is for seeking prior environment clearance for expansion in capacity of coal washery from 1.2 MTPA (Dry Process) to 3.6 MTPA (By Adding 2.4 MTPA Through Wet Process) of M/s Maheshwari Coal Beneficiation and Infrastructure Pvt. Ltd located in village Parasda, Sirgitti Industrial Areas Tehsil & District Bilaspur (Chhattisgarh). Earlier, the proposal was taken up for EAC consideration, however, PP did not come prepared and his EIA consultants were also not present.

**56.2.2** 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 64-J/4 & 64-K/1 and is bounded by the geographical coordinates ranging from 22°02'17.6" N to 22°02'33.3" N latitude and longitudes 82° 07' 40.0" to 82° 08' 14.0" E
- (ii) Coal linkage of the project is proposed from M/s Jhabua Power Ltd. use for wet coal washery
- (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, skilled, semi-skilled and unskilled employment to 70 persons will be provided from the project during construction phase and once the project operational 150 persons will be employed.
- (v) The project is reported to be beneficial in terms of Proposed Expansion of coal washery will facilitate in supply of washed coal to more industries. Also the Proposed Expansion of Coal Washery unit will generate more revenues for the State Government by way of taxes on coal and benefit the local people by way of direct and indirect employment. This project is expected to yield a positive impact on the socio - economic environment of the region. It will also help in sustainable development of this area including further development of physical infrastructural facilities.
- (vi) Earlier, the environment clearance to the project was obtained under EIA Notification, vide Ministry's letter No. J-11015/950/2007-IA-II(M) dated 18<sup>th</sup> March 2009 for 1.2 MTPA dry coal washery in mine lease area of 8.094 ha (approx. 20 acres).
- (vii) Transportation of coal has been proposed by road in mine pit head, from surface to siding by road and at sidings by rail cum road.
- (viii) An area of 2.14 ha., included in the safety zone/rationalization area, has also been proposed for green belt development.
- (ix) Land use details:

Sr. No.	Description	Area in Hectares
1	Existing Washery Area	2.501
2	New Washery Area	2.513
3	Raw coal stockyard	1.013
4	Washed coal & reject stockyard	1.021
5	Raw Water Reservoir	2.45
6	Railway Siding	3.06
7	Green Belt	7.13
8	Internal Roads, Office Sheds, etc	1.91
	Total	21.59

- (x) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been reported with 10 km boundary of the project.
- (xi) The ground water level has been reported to be varying between 2.0 m to 5.0 m during pre-monsoon and between 1.5 m to 4.5 m during post-monsoon. Total water requirement for the project is 443KLD.
- (xii) Public hearing for the project of 2.4 MTPA capacity in an area of 6.48 ha. was conducted on 10.08.2018 behind Sirgitti Police Station, Tehsil & District- Bilaspur, Chhattisgarh. Major issues raised in the public hearing include depleting of ground water, pollution related disease & un-employment. Appropriate action to address the issues raised in the Public Hearing have proposed to be taken.
- (xiii) Consent to Operate for the existing capacity was obtained from the State PCB on 21.11.2019 and is valid till 31.12.2020.
- (xiv) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to SPCB and also to MoEF&CC along with half yearly EC compliance report. In general, the results of ambient air quality monitoring data were found within prescribed limits except few aberrations which can be attributed to the specific local conditions during the day of sampling.
- (xv) No court cases, violation cases are pending against the project of the PP.
- (xvi) 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 2009 onwards. No excess production of coal from the sanctioned capacity has been realized since the commencement of operations.
- (xvii) Total cost of the project is Rs. 1900 lakhs. CSR cost is Rs. 19 lakhs, R&R cost is Rs. 0 crores. Environment Management Cost is Rs. 4.0 crores.
- (xviii) Consent to operate (CTO) was obtained from the State Pollution Control Board on 21.11.2019 and is valid till 31.12.2020.

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

The proposal is for seeking prior environmental clearance for expansion in capacity of coal washery from 1.2 MTPA (Dry Process) to 3.6 MTPA (By Adding 2.4 MTPA Through Wet Process) of M/s Maheshwari Coal Beneficiation and Infrastructure Pvt. Ltd located in village Parasda, Sirgitti Industrial Areas Tehsil & District Bilaspur (Chhattisgarh).

Earlier, the environment clearance to the project was obtained under EIA Notification, vide Ministry's letter No. J-11015/950/2007-IA-II(M) dated 18<sup>th</sup> March 2009 for 1.2 MTPA dry coal washery in mine lease area of 8.094 ha (approx. 20 acres)

TOR was granted for proposed expansion vide letter no. J-11015/82/2016-IA.II (M) dated 6.04.2017.

Public hearing for the project of 2.4 MTPA capacity in an area of 6.48 ha. was conducted on 10.08.2018 behind Sirgitti Police Station, Tehsil & District- Bilaspur, Chhattisgarh. Major issues raised in the public hearing include depleting of ground water, pollution related disease & unemployment. Appropriate action to address the issues raised in the Public Hearing have proposed to be taken.

RO Certified report obtained vide F. No. EC-1030/RON/2019-NGP/5838 dated 18.10.2019.

**56.2.4** *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:*

- (i) *Quantity of wastewater generated and discharge is mentioned same in Form#2 at PARIVESH Portal. No loss of water is included for justifying zero liquid discharge.*
- (ii) *Form#2 at Sr. No. 32 in green belt plan- only proposed map of green belt development plan is submitted. PP shall submit year wise plantation with fund allocation for the same.*
- (iii) *Form#2 at Sr. No. 32 (i) and Sr. No. 22 regarding area of green belt is not matching*
- (iv) *The values of air quality mentioned in Form#2 at Sr. No. 14.1 and Sr. No. 18.1 are different. PP shall justify the same.*
- (v) *Copy of agreement of power requirement is not enclosed in Form# 2 at Sr. No. 19*
- (vi) *Action taken report and action plan for compliance of conditions on the basis RO report shall be submitted.*
- (vii) *Clarification from District Forest Officer regarding no presence of schedule I species in the project area and buffer zone shall be submitted.*
- (viii) *PP shall enclose Attendance of Public Hearing and Letter of Member Secretary to MoEF regarding information of Public Hearing proceedings.*
- (ix) *In EIA report: 0.48 MTPA of coal rejects will be generated during coal washing. The rejects will be stored in an earmarked place for sale to power plants and cement plants having CFBC and AFBC boilers for steam generation. No rejects shall be sold to brick and briquette manufacturers. Updated MoU or plan for utilization of rejects should be provided.*
- (x) *PP shall provide water balance with its quantity of usage at each points.*

- (xi) *Traffic Impact Assessment from coal mine to washery and impact on habitation along the road and 100 m from the corners of the road.*
- (xii) *Proposed Green belt development program along-with time line and budgetary allocation needs to be provided.*
- (xiii) *Air quality modelling for PM10 maximum value of 70.7 ug/m3 shall be conducted instead of 64.5 ug/m3 for impact modelling.*
- (xiv) *Impact modelling considering crusher stack and fugitive dust shall be conducted and also modelling for SO2, NOx has to be done.*
- (xv) *Details of past production figure vis-à-vis previous EC shall be submitted*

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

### **Agenda No.56.3**

**Expansion of Makardhokra-I Opencast mine (Phase-I) in Capacity from 2 MTPA to 3.50 MTPA of M/s Western Coalfields Limited in mine lease area of 614.69 ha located in Tehsil Umrer, District Nagpur (Maharashtra) – For Environmental Clearance – reg.**

**[Online Proposal No. IA/MH/CMIN/154498/2018; J-11015/54/2006-IA-II (M)]**

**56.3.1** This proposal seeks prior environmental clearance to expansion of Makardhokra-I Opencast mine (Phase-I) in capacity from 2 MTPA to 3.50 MTPA of M/s Western Coalfields Limited in mine lease area of 614.69 ha located in Tehsil Umrer, District Nagpur (Maharashtra).

**56.3.2** Details of the proposal, as ascertained from the proposal documents and also as informed during the meeting, are given as under:

- (i) The existing Makardhokra –I OC Coal mine project has been granted environmental clearance vide ref no. J-11015/54/2006-IA. II (M) dated 26.11.2015 for production capacity of 2.00 MTPA within ML area of 660.70 Ha.
- (ii) The present proposal is for obtaining Environmental Clearance for Expansion of Makardhokra I OC (Phase-I) by increasing production capacity from 2.00 MTPA to 3.50 MTPA within ML area of 614.69 Ha.
- (iii) ToR for the expansion proposal for increasing production capacity from 2.00 MTPA to 3.50 MTPA within 614.69 ha area has been granted vide MoEF&CC Letter No. J-11015/54/2006-IA. II (M) dated 07.11.2019.
- (iv) The project area is covered under Survey of India Topo Sheet No 55 P/1 and 55 P/5 is bounded by the geographical coordinates ranging from latitude N 20°50'33" to 20°52'14" and Longitude E 79°14'7.8" to 79°16'24".
- (v) Coal linkage of the project is from Thermal power plants of MAHAGENCO & Miscellaneous consumers. There is no Joint venture involved.

- (vi) Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC's vide its OM dated 13<sup>th</sup> January, 2010 has imposed moratorium on grant of environment clearance.
- (vii) Employment generation: Required Manpower for the project is 275 Nos as direct employment and approx. 300 contractual employment will be generate through outsourcing work.
- (viii) Project benefits

Sl.No	Type of Project Benefits	Details of Project Benefits
1	Environmental	Increase in Green belt area (green cover over an area of 162.26 ha), Mine water utilization for adjoining areas and Conservation of coal.
2	Social	Direct employment to eligible persons preferable local persons besides creating indirect employment opportunities. Various CSR activities in adjoining villages will help in improving social status.
3	Financial	The project will contribute government through various taxes.

- (ix) Total land involved in Phase – I is 614.69 ha. Mining Plan (built in Mine closure plan) of Expansion of Makardhokra I OC mine (Phase-I) for production capacity of 3.50 MTPA was approved by WCL Board in its 313<sup>st</sup> meeting held on 01.08.2019 vide letter WCL/BD/SECTT/BM-313/2019/712 dated 06.08.2019.
- (x) The land usage pattern of the project is as follows:

Pre-mining land use details : Details of changes in land use is provided below:

Sl. No.	Type of land	Land (Ha) Proposed in approved Mining Plan
1	Tenancy Land	589.97
2	Govt. Land	24.72
3	Forest land	0.00
	<b>Total</b>	<b>614.69</b>

Post-mining land use details

S.No.	Land use during mining	Land use (ha)				
		Plantation	Water Body	Public Use	Undisturbed	Total
1	Excavated Area	0.00	156.06	0.00	96.90	252.96
2	External OB dump	120.00	0.00	0.00	17.81	137.81
3	Infrastructure	2.00	0.00	11.00	0.00	13.00
4	Road	0.50	0.00	1.50	0.00	2.00
5	Green Belt	8.00	0.00	0.00	0.00	8.00
6	Safety Zone	0.00	0.00	0.00	56.24	56.24

S.No.	Land use during mining	Land use (ha)				
		Plantation	Water Body	Public Use	Undisturbed	Total
7	Miscellaneous (300m blasting zone, river diversion, power line diversion & rationalization	31.76	0.00	0.00	112.92	144.68
<b>Total</b>		<b>162.26</b>	<b>156.06</b>	<b>12.50</b>	<b>283.87</b>	<b>614.69</b>

- (xi) Total geological reserve reported within the quarry limits is 52.863 MT. Out of 52.863 Mt net in-situ geological reserves in Makardhokra-I block, 16.358Mt coal reserves is blocked in quarry batter, sub-crop and surface infrastructure like Railway line etc. which will be mostly worked in future after dismantling of Railway line. Hence, the total net in-situ geological reserves within the quarry works out to 36.505 Mt (52.863-16.358). The balance mineable reserves considering 5% mining losses in phase – I quarry area works out to 17.16 Mt. Extractable reserves as on 01.04.2019 are 16.30 MT (Phase – I). Percent of extraction is 95.00%.
- (xii) Grade of Coal GCV – 4997 Kcal/kg, G-8, stripping ratio 1: 7.35 m<sup>3</sup>/t.
- (xiii) Mining operations presently being done by opencast method with shovel dumper combination and same method will continue in the expansion also.
- (xiv) Life of mine: 5 years.
- (xv) Backfilling of total 24.03 Mm<sup>3</sup> (Already backfilled 15.88 + Balance 8.15 Mm<sup>3</sup>) of OB into void of adjacent Makardhokra II OC will save approximately 75 Ha of additional land from degradation.
- (xvi) Merger of External OB Dump, Internal Dumps of Makardhokra I OC & Makardhokra II OC will accommodate additional 17.5 Mm<sup>3</sup> of OB which would result in saving of approximately 50 ha from land degradation. Thus, Backfilling in Makardhokra II OC and merging of Dumps would result in overall saving of 125 Ha of land.
- (xvii) Total quarry area is 252.96 Ha. Out of which backfilling will be done in 96.90 Ha while final mine void will be created in an area of 156.06 Ha with a maximum depth of 140 m. Final mine void will be converted into water body.
- (xviii) Transportation of coal in pits by dumpers, from surface to Railway sidings by tippers. Coal will be transported in tarpaulin covered trucks to Umrer Railway siding.
- (xix) Reclamation Plan/afforestation plan is for 162.26 Ha. It includes reclamation of 120.00 Ha of external OB dump, 31.76 Ha on undisturbed land and 8 Ha Green Belt and 2 Ha along infrastructure and 0.5 Ha along roads.
- (xx) No forest land has been reported to be involved in the project.
- (xxi) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been reported with 10 km boundary of the project.
- (xxii) The ground water level has been reported to be varying between 3.55 to 6.75 m during pre-monsoon and between 2.0 to 5.06 m during post-monsoon (core zone). Total water requirement for the project is 480 KLD.

- (xxiii) NOC from CGWA has been secured for abstraction of ground water vide its letter CGWA/ NOC/ MIN/ ORIG/ 2020/ 8139 dated 09.06.2020
- (xxiv) Public Hearing has been conducted at Community Hall, WCL Colony, Umrer Tehsil, District Nagpur, Maharashtra at 11.00 AM on 16.01.2020. Public Hearing was conducted for increase in production capacity from 2.00 MTPA to 3.50 MTPA within 614.69 Ha of Expansion of Makardhokra-I OC Mine.
- (xxv) Consent to Operate: Consent to Operate has been granted for existing Makardhokra – I OC for 2.00 MTPA capacity vide Format1.0/BO/CAC-Cell/CAC- UAN No. 24388/ CC-1901000356 dated 05.01.2019 valid from 31.03.2016 to 31.03.2021.
- (xxvi) Nala No-2 (Shirpur nala) flowing in the eastern direction passing through the central part of the block is a seasonal nala and it ultimately discharges into the Amb river further east near Kanwa village outside the block. This nala has been diverted beyond quarry surface of Phase-I quarry. The Amb river meets the Wainganga river near its confluence with Kanhan river about 40 km ENE of the coalfield.
- (xxvii) Baseline data generated including meteorological data, air quality, water quality, and noise quality, during April 2019 to June 2019 for adjacent Umrer OC, is used as baseline for this project. In compliance with EAC directives & specific ToR conditions, baseline data has been augmented with baseline data generated from Oct'2019 to Jan'2020 for Makardhokra –I expansion OC. The results were found to be within the permissible limits.
- (xxviii) The baseline data for ambient air quality generated in post-monsoon season from 15<sup>th</sup> October, 2019 to 15<sup>th</sup> January, 2020 for 12 weeks continuously was found to be within the permissible limits.
- (xxix) No court cases, violation cases are pending against the project pertaining to environment.
- (xxx) The project does not involve violation of the EIA Notification, 2006 and amendment issued thereunder. No excess production of coal from the sanctioned capacity has been reported to be realized since inception.

Year	EC sanctioned capacity (MTPA)	Actual production (MTPA)	Excess production beyond EC sanctioned capacity
2014-15	1.00	0.07	Nil
2015-16	2.00	0.96	Nil
2016-17	2.00	1.81	Nil
2017-18	2.00	1.60	Nil
2018-19	2.00	2.00	Nil
2019-20	2.00	1.99	Nil

- (xxxi) Total cost of the project is Rs 266.2308 crores including WDV of Rs 30.4700 crores of existing assets (As per approved PR, March 2014).
- (xxxii) No rehabilitation of village is envisaged in Phase-I of the project.

### **56.3.3 The EAC during deliberations noted the following: -**



The proposal is for environmental clearance to expansion of Makardhokra-I Opencast mine (Phase-I) in capacity from 2 MTPA to 3.50 MTPA of M/s Western Coalfields Limited in mine lease area of 614.69 ha located in Tehsil Umrer, District Nagpur (Maharashtra).

ToR for expansion proposal for increasing production capacity from 2.00 MTPA to 3.50 MTPA within 614.69 ha area has been granted vide MoEF&CC Letter No. J-11015/54/2006-IA. II (M) dated 07.11.2019

Public Hearing has been conducted at Community Hall, WCL Colony, Umrer Tehsil, District Nagpur, Maharashtra at 11.00 AM on 16.01.2020. Public Hearing was conducted for increase in production capacity from 2.00 MTPA to 3.50 MTPA within 614.69 Ha of expansion of Makardhokra-I OC Mine.

Total land involved in Phase – I is 614.69 ha. Mining Plan (built in Mine closure plan) of expansion of Makardhokra I OC mine (Phase-I) for production capacity of 3.50 MTPA was approved by WCL board in its 313<sup>st</sup> meeting held on 01.08.2019 vide letter WCL/BD/SECTT/BM-313/2019/712 dated 06.08.2019.

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

- Letter of Member Secretary to MoEF regarding Public Hearing proceedings is not provided or enclosed.*
- PP shall justify the baseline monitoring conducted during October, 2019 to 15<sup>th</sup> January, 2020 and then PH was conducted on 16<sup>th</sup> January, 2020.*
- Permission of CGWA for ground water extraction is still pending since 2017.*
- PP shall correct details submitted in Form # 2 @ Sr. No.27 regarding R & R, PP states there are 0 villages for R&R however at the end it mentions that R & R yet to start. And @Sr. No.35 (4) Approved Mine lease area is stated as 614.69 ha however approval document enclosed states that total land area is 660.02.*
- Study the impact of diversion of Shirpur Nallah and accordingly necessary permission from concerned State Water Resource Department shall be submitted.*
- Fresh/Separate baseline data for Flora & Fauna should be generated instead of using of Dinesh OC (nearby Makardhokra-I).*
- PP shall clarify why CER is not applicable though the proposal is for expansion from 2 MTPA to 3.5 MTPA there must be additional capital investment for the project*
- Permission for diversion is required from concerned authority for Butibori-Kanwa PWD road which is passing in between proposed dip side quarry surface and external dump.*
- PP shall carry out hydro-geological investigations as regards the quality and quantity of water. Impact of mining activity on aquifers and water table considering the project is located near the Makardhokra Reservoir shall also be studied.*
- PP shall implement separate ETP for the proposed project for HEMM deployed though their maintenance will be contractor's responsibilities.*

- *PP shall provide necessary mitigation measures as maximum Air quality data of PM10 and PM2.5 is almost close to 100 and 60 respectively at almost all the sites*
- *Mitigation measures to protect residence of Shirpur village should be proposed by PP as rehabilitation of Shirpur village is proposed in Phase – II.*
- *Clarification from District Forest Officer that project does not falls under Umred Karhandla Wildlife Sanctuary, Tadoba Andhari Tiger Reserve, Pench Tiger Reserve, Navegaon Nagzira Tiger Reserve, Melghat Tiger Reserve, Bor Wildlife Sanctuary, and Tipeswar Wildlife Sanctuary and there is no wildlife corridor (Tiger/Elephant).*
- *Site visit may be conducted as early as possible by sub-committee of EAC*

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

#### **Agenda No.56.4**

**Expansion of Ballarpur OCP (from 0.50 MTPA to 0.625 MTPA) in an ML area of 242.64 ha of M/s Western Coalfields Limited, Village Ballarpur, District Chandrapur (Maharashtra) – Amendment in Environment Clearance**

**[Online Proposal No. IA/MH/CMIN/152112/2020, J-11015/71/2013-IA-II(M)]**

**56.4.1** The proposal for amendment/extension of environment clearance dated 30<sup>th</sup> January 2015 of Expansion of Ballarpur OCP (from 0.50 MTPA to 0.625 MTPA) in an ML area of 242.64 ha of M/s Western Coalfields Limited, Village Ballarpur, District Chandrapur (Maharashtra).

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

The proposal for amendment/extension of environment clearance dated 30<sup>th</sup> January 2015 of Expansion of Ballarpur OCP (from 0.50 MTPA to 0.625 MTPA) in an ML area of 242.64 ha of M/s Western Coalfields Limited, Village Ballarpur, District Chandrapur (Maharashtra).

Environmental Clearance for Ballarpur OC mine for 0.50 MTPA coal production in an ML area of 242.64 ha was granted by Ministry of Environment & Forests (MoEF) vide its letter no. 11015/145/2007-IA.II(M) dated 18th June 2008. Subsequently, EC for enhancement in production capacity from 0.50 MTPA to 0.625 MTPA in the same ML area of 242.64 ha was granted by MoEF vide letter no. 11015/71/2013- IA.II (M) dated 30th January 2015.

The EC granted on 30-01-2015 for expansion of Ballarpur OC was valid for 5 years (life of mine mentioned in EC letter) i.e. upto 29-01-2020. The coal production operation of the mine completed on 15-01-2020.

It was submitted that during the implementation of mine closure activities, it is found that, there are additional coal reserves left in the old underground working which would get released after demolition of surface structures (required for implementation of mine closure activities). Earlier this coal could not be taken because of very high stripping ratio at that time and proximity of underground

working. Now since, UG workings has moved further far away and stripping ratio of 1 in 10.78 (including Rehandling) has become viable through HOE. So, instead of leaving this coal untouched, it would be prudent to extract this coal in the interest of nation before finally closing Ballarpur OC. This additional coal reserve quantity is 2.496 MT which can be extracted by excavation of additional quarry area of 5.222 ha.

For mining this coal with the existing system, a separate mining plan has been prepared which also includes the mine closure plan. This mining plan has been approved by the WCL board in its 321st meeting held on 24-04-2020 and communicated through resolution no. WCL/Office of CS/BM-321/2020-21/50 dated 25-04- 2020. Life of mine is 5 years at the capacity of 0.625 MTPA for extraction of additional reserves of 2.496 MT coal available along fault line. Certified compliance report of existing EC dated 30-01-2015 has been secured from RO, MoEF & CC, Nagpur vide letter no. 3-45/2008(ENV) dated 07-05-2020 & ATR submitted vide letter dated 11-05-2020.

As per Ministry's notification dated 29<sup>th</sup> 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. ”*

PP submitted that the proposal for extension/amendment of environment clearance was submitted by project proponent on 24<sup>th</sup> April, 2020 i.e. within the 90 days (87 days) of the validity period of EC letter dated 30<sup>th</sup> January, 2015. Screenshot of application to be verified by the Ministry dated 24<sup>th</sup> April, 2020 was shared. However, it was pending on PARIVESH Portal for verification. later it was verified and essential details was sought in May, 2020. Date of submission of proposal on PARIVESH portal is mentioned as 27<sup>th</sup> May, 2020

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).

**56.4.3** *The EAC after deliberations observed that as the mine is on the verge of closure and there is some discrepancy with regard to date of application vis-à-vis validity of EC. However, considering the full extraction of coal is important before closure of mine, EAC **recommend** the competent authority to condon the delay of application and also recommend the competent authority for extension/amendment of Environment Clearance dated 30<sup>th</sup> January, 2015 for a further period of 5 years from the date of issue EC amendment letter or as per life of the mine, whichever is earlier) for expansion proposal of Ballarpur OCP (from 0.50 MTPA to 0.625 MTPA) in an ML area of 242.64 ha of M/s Western Coalfields Limited, Village Ballarpur, District Chandrapur (Maharashtra), 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) *Clarification of date of the application within 90 days as per Ministry's notification dated 29th April, 2015, of the expansion and validity extension proposal of the mine shall be ascertained from PARIVESH Team of NIC.*
- (ii) *Clarification from District Forest Officer that mining area and its ancillary activities does not fall under Corridor of Tadoba Andhari Tiger Reserve, Kawal Wildlife Sanctuary (Telangana), Chaprala Wildlife Sanctuary, Painganga Wildlife Sanctuary, and Tipeswar Wildlife Sanctuary.*
- (iii) *Validity of the existing EC along with capacity expansion is upto the life of the mine or 5 years, whichever is earlier from the date of issue of such letter.*
- (iv) *The project proponent shall obtain Consent to Establish/Operate from the State Pollution Control Board for the proposed peak capacity of 0.625 MTPA (Peak) prior to commencement of the production.*
- (v) *All the non-compliance/partly complied condition as per certified compliance report of RO, Nagpur vide its report dated 7<sup>th</sup> May, 2020 shall be complied within 2 years.*
- (vi) *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. The results along with the recommendation shall be presented before the EAC to assess the efficacy and adequacy of pollution control measures.*
- (vii) *Transportation of coal from Coal Handling Plant(CHP) shall be through mechanized covered trucks. 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*
- (viii) *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.*
- (ix) *Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.*
- (x) *Persons of nearby villages shall be given training on livelihood and skill development to make them employable*
- (xi) *Mechanism for treating stored mine water shall be developed to avoid any ground and surface water contamination*
- (xii) *Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles*
- (xiii) *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.*
- (xiv) *The activities and fund provisions for CER shall be made as per the guidelines issued by the ministry regarding CER on 1<sup>st</sup> May, 2018.*
- (xv) *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.*

- (xvi) 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 2<sup>nd</sup> August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.*
- (xvii) 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 commenced 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.*
- (xviii) 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.*
- (xix) 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".*
- (xx) 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.*
- (xxxvii) 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. 56.5**

**Pakri-Barwadih Coal Mine Project of 15 MTPA in an area of 3319.42 ha of M/s National Thermal Power Corporation Ltd located in Tehsil Barkagaon District Hazaribagh (Jharkhand)- amendment in Environment Clearance(EC) - reg.**

**56.5.1** The proposal is for extension in amendment of environment clearance to Pakri Barwadih Coal Mine Project of 15 MTPA in an area of 3319.42 ha of M/s National Thermal Power Corporation Ltd located in Tehsil Barkagaon District Hazaribagh (Jharkhand).

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

The proposal is for extension in amendment of environment clearance to Pakri Barwadih Coal Mine Project of 15 MTPA in an area of 3319.42 ha of M/s National Thermal Power Corporation Ltd located in Tehsil Barkagaon District Hazaribagh (Jharkhand).

Earlier, the Environment Clearance for Pakri Barwadih Coal Mine project (15 MTPA from West & East Quarry) was granted under EIA Notification, 2006 vide Ministry's letter No. J-11015/692/2007-IA-II(M) dated 19th May, 2009 for 15 MTPA in mine lease area of 3319 ha and subsequently amendments dated 29.06.2016, 07.12.2017 and 14.08.2018.

Earlier, Environment Clearance for Pakri Barwadih Coal Mine project (15 MTPA from West & East Quarry) was granted to the project on 19<sup>th</sup> May 2009, and subsequently amendment in EC was accorded regarding permission for transportation of coal by road from crusher point to the Banadag railway siding for Pakri Barwadih Coal Mine Block vide letter dated 29<sup>th</sup> June, 2016 which is valid up to 28<sup>th</sup> June 2018. Further, amendment was granted in EC w.r.t. specific and general conditions on 7<sup>th</sup> December, 2017.

After EC amendment letter dated 29<sup>th</sup> June, 2016 for the specific condition no. 2A (ix) PP again proposed amendment to transport the coal through newly constructed mine peripheral road passing through Upadari & Jugra village and further service road along the belt conveyor with minimal use of public road (about 4 km only) for movement of loaded trucks. Hence, the distance for transportation of coal by road has been reduced from 35 km to 23.72 km.

Ministry vide its letter dated 14<sup>th</sup> August, 2018 granted the permission to transport coal from Pakri Barwadhi CMB to Banadag Railway siding for further two years (i.e. up to 28.06.2020) by road as an interim arrangement by way of suitable amendment in PBCMB EC specific Condition No. 2A (ix) as the erection of conveyor corridor system will take some more time to complete.

Now, this is third time, project proponent is seeking further amendment to extension of above amendments for transportation of coal by road from Crusher Point at mine end to Banadag Railway

Siding for a further period of two years (i.e. up to 28.06.2022) due to delay in construction of dedicated conveyor system to the railway siding and production from mine is in full swing. Therefore, it was proposed to extend the amendment in EC condition transport of coal by road from Crusher Point at mine end to Banadag Railway Siding till the dedicated conveyor system becomes operational. Further, PP has submitted that, in view of MOEF&CC Gazette Notification dated 21.05.2020, the existing Environmental Clearances stand modified so as to make the above conditions operative for relevant sectors and no amendments and its extension is required to transport coal by road.

As per Para 8 (3) (i) and (ii) of MOEF&CC Gazette Notification dated 21.05.2020, coal transportation by road may be undertaken in trucks covered with tarpauline or other means till such time enabling rail transport or conveyor infrastructure is not available. Further, as per Para 8 (4) of MOEF&CC Gazette Notification dated 21.05.2020, the existing Environmental Clearances shall stand modified so as to make the above conditions operative for relevant sectors. The Consent to Operate shall be issued by respective State Pollution Control Boards accordingly. In view of the above, a clarification may be issued in this regard.

*56.5.3 The EAC, after deliberations, observed that this is third time project proponent (M/s NTPC) has sought amendment and its extension. the PP repetitively asking for amendments without compliance of EC conditions and by citing some reasons related to land acquisition and local problems etc. The proposal for amendments for the coal transportation by road cannot granted repetitively. It seems that PP is not willing to install conveyor belt system with silo loading in railway siding and keep on carrying coal with road transportation.*

*Earlier also, similar kind proposals of different mines were being submitted by the same PP. Ministry may take a necessary view on this and EAC desires that Ministry may write to Ministry of Power and Managing Director/Chairman of the PP to strictly comply with EC conditions within stipulated timeline.*

*Further, with regard to Ministry's notification dated 21<sup>st</sup> May, 2020 on the use of coal by TPP without stipulations as regard to ash contents or distance, it is observed that the relaxation of transportation has been extended to power producers(TPP) by allowing use of coal exempting 34% ash content or distance criteria with the conditions on setting up technology for emission control, management of ash pond and transportation to these TPPs. The relaxations in transportation shall not apply to all coal mines as all coal coming to such TPPs may not be coming from coal mines only. Some of the coal quantities may be coming from direct imports too. Further EAC is of the view that such relaxation of EC conditions in transportation of coal extracted from all mines shall alter the EC conditions of all existing mines where one of the major condition is to transport coal by rail to mitigate pollution for full life of mines i.e. 30 years. Permitting the road transportation of coal without a time limit, would cause a considerable impact on the population/habitation staying along the transport route. Further it would be unfair to those coal mines who have already incurred heavy cost in mitigating pollution by commissioning railway sidings and the conveyor belt with silo loading. While granting coal mines EC, based on the EIA/EMP reports, conditions such as implementation of*



*conveyor belt with silo loading has been stipulated to avoid impact of road transportation to reduce air/other pollution, are imposed. Relaxation of these conditions would cause all coal mine operators to tie up with such TPPs using 34% ash content coal and seek exemption from commissioning railway sidings and conveyor belt system. Therefore, already stipulated EC conditions in all coal mines shall be implemented within the timeframe prescribed in the respective ECs. Further, prospectively, new ECs with new ToR, road transportation clause of this notification may be prescribed along with a maximum timeframe of 5 years of commissioning of railway sidings and the conveyor systems. Any change in scope of project shall seek necessary amendment with proper justification and its impact on environment and shall be appraised by EAC. Ministry may consider the observation of EAC accordingly clarification may be issued on Gazette Notification 21<sup>st</sup> May 2020 as referred above.*

*Also, till the clarification of Ministry comes, Present proposal is **recommended** for extension of Environment Clearance amendment, further for a period of **six months** to transport the coal on proposed route again as an interim arrangement and further insisted on early erection of conveyor corridor system within certain time frame.*

#### **Agenda No. 56.6**

**Chhattibariatu Opencast Coal Mine Project (7 MTPA and 646.23 ha ML area) of M/s NTPC Ltd located in North Karanpura Coalfields, in villages Chhattibariatu, lordag and Pagar in district Hazaribagh, Jharkhand – Amendment in Environmental Clearance -reg.**

**56.6.1** The proposal is for amendment in EC for Chattibariatu Coal Mining Project of 7 MTPA peak capacity in mine lease area of 646.23 ha of M/s NTPC Limited located in North Karanpura Coalfields in villages Chatti bariatu, Jordag, Kerendari and Pagar, Tehsil-Kerendari, District-Hazaribagh (Jharkhand)

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

The proposal is for amendment in EC for Chattibariatu Coal Mining Project of 7 MTPA peak capacity in mine lease area of 646.23 ha of M/s NTPC Limited located in North Karanpura Coalfields in villages Chatti bariatu, Jordag, Kerendari and Pagar, Tehsil-Kerendari, District Hazaribagh (Jharkhand).

Earlier, Environment Clearance was granted by Ministry to the project on 19<sup>th</sup> April, 2010 with a conditions at 2(A) (ix & xi) i.e.

*2(A) (ix) - Raw coal from CHP shall be transported by closed conveyors to the railway siding and from there to linked Barh STPS by rail. There shall be no road transportation of coal.*

*2(A) (xi) Company's Railway siding shall be established within 3 years from date of grant of environmental clearance.*

Pursuant to the judgment and order of the Supreme Court, the MOC in accordance with provisions of the Coal Mines (Special Provisions) Second Ordinance, 2014 and the Coal Mines (Special Provisions) Rules 2014 has completed the auction of the de-allocated mines. Pursuant to the orders of Hon'ble Supreme Court in August/September, 2014 on cancellation of coal blocks, and subsequent enactment of the Coal Mines (Special Provisions) Act, 2015,

Accordingly, on receipt of the Vesting/Allotment orders under clause (c) of sub-rule (2) of rule 7 and sub-rule (1) of rule 13 and Order No. 103/26/2015/NA dated 8<sup>th</sup> September, 2015 issued by the Nominated Authority in the Ministry of Coal, environment clearances to Chhattibariatu Opencast Coal Mine Project of 7 MTPA in an ML area of 646.23 ha in North Karanpura Coalfields, villages Chhattibariatu, Jordag and Pagar, District Hazaribagh (Jharkhand) was transferred/revalidated in favour of the successful bidders/fresh allottees i.e M/s National Thermal Power Corporation Limited as the successful allottee on 3<sup>rd</sup> March, 2016 subject to all the conditions of EC dated 19<sup>th</sup> April, 2010 remains unchanged.

Therefore, Amendment proposal for above conditions for temporary permission for transportation of coal from Chattibariatu Coal Mine Block to Shivpur Railway Siding by road for a period of two years should have been applied in March, 2019. However, PP has not applied on within stipulated timeline which may be considered as non-compliance of EC conditions.

Further, PP has submitted that, in view of MOEF&CC Gazette Notification dated 21.05.2020, the existing Environmental Clearances stand modified so as to make the above conditions operative for relevant sectors and no amendments and its extension is required to transport coal by road.

As per Para 8 (3) (i) and (ii) of MOEF&CC Gazette Notification dated 21.05.2020, coal transportation by road may be undertaken in trucks covered with tarpauline or other means till such time enabling rail transport or conveyor infrastructure is not available. Further, as per Para 8 (4) of MOEF&CC Gazette Notification dated 21.05.2020, the existing Environmental Clearances shall stand modified so as to make the above conditions operative for relevant sectors. The Consent to Operate shall be issued by respective State Pollution Control Boards accordingly. In view of the above, a clarification may be issued in this regard

The construction of dedicated conveyor system to the railway siding got delayed and will take about 3 years to complete but the coal mine is in advance stage of development and will be ready to dispatch coal from October 2020 onwards. Therefore, it is proposed to transport of coal (10,000 TPD from Chattibariatu CMP) by road through 25 tonne capacity tippers/ dumpers from mine to Shivpur siding for a period of 2 years i.e. from October 2020 to September 2022 or till the dedicated conveyor system becomes operational, whichever is earlier.

*56.6.3 The EAC, after deliberations, reiterated the observation mentioned in above proposal of Pakri Barwadih at 56.6.3. Also as PP did not applied the amendment within the time of EC conditions, this may be considered as non-compliance of EC conditions and accordingly the ministry may take necessary action on non-compliance. Further EAC noted that land have been acquired for coal mine but PP is unable to acquire land for compliance of EC conditions such as railway siding. EAC desires that Ministry may write to Ministry of Power and Managing Director/Chairman of the PP to strictly comply with EC conditions within stipulated timeline. Ministry may also issue clarification on Gazette Notification as referred above.*

*The proposal was deferred as of now on the above lines.*

### **Agenda No. 56.7**

**Lohari Opencast Coal Project of 0.2 MTPA in a total lease area of 405 ha of M/s Araanya Mines Private Limited located in villages Lohanara, Kathautia Gareyadih, Tehsil Patan, District Palamau (Jharkhand) - For Amendment in Environment Clearance**

**56.7.1** The proposal is for amendment in environmental clearance from 405 ha to 126.90 ha (removing forest out of the 405 ha project area) for Lohari Opencast Coal Project of 0.2 MTPA capacity in total project area of 405 ha of M/s Araanya Mines Pvt. Ltd. (AMPL) located in village Lohanra, Kathautia, Gareyadih and Garikhas, Tehsil Pandwa, District Palamu (Jharkhand).

Earlier the proposal was considered by EAC in its 53<sup>rd</sup> meeting held on 20<sup>th</sup> February, 2020 and observed the following:-

*“The EAC after deliberations observed that though the project proponent has revised the mine plan however EC was transferred based on vesting order from Ministry of Coal for 405 ha. EAC suggested to PP that either to surrender the said remaining land for amendment in EC or may ask Ministry of Coal to revise the vesting order allotted to the project proponent.*

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

**56.7.2** Details of the project as submitted by project proponent for amendment of EC are given as under:

- (i) The project area is covered under Survey of India Topo Sheet No 72D/4 (SOI Open series Map no. G45S4) and is bound by the geographical coordinates ranging from 24°08'31.4" to 24°09'30.751" N and longitudes 84°03'28.75" E and 84°05'11.7" E.
- (ii) Coal linkage of the project is proposed for end use sponge iron plants of JV companies
- (iii) Joint venture has been formed of M/s Aloke Steels Industries Private Limited and M/s Maa Chinnmastika Cement and Ispat Private Limited, located in Distt. Ramgarh, Jharkhand.
- (iv) Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC's vide its OM dated 13.01.2010 has imposed moratorium on grant of environmental clearance.

- (v) Employment generation- permanent employment to 185 persons will be provided in the project.
- (vi) The project shall be beneficial in terms of employment opportunities under various cadres viz. management, supervisory, highly skilled, skilled, semi-skilled and unskilled workmen etc.
- (vii) Earlier, the environment clearance to the project was obtained under EIA Notification, 2006 vide Ministry's letter No J-11015/756/2007-IA.II (M) dated 13.03.2008 for 0.2 MTPA of coal production in mine project area of 405 ha to previous Lessee M/s Usha Martin Ltd. The EC was transferred to M/s Aaranya Mines Ltd. on 10.06.2015.
- (viii) The total mining lease area for working in non-forest area will be 126.90 ha. Block area is 335 ha. A mining plan (Modification/ Revision-I) (including mine closure plan) has been approved for non-forest area of 126.90 ha with a production of 0.2 MTPA by Ministry of Coal vide letter dated 10.07.2019.
- (ix) The land usage pattern of the project is as follows:

**Pre-mining land use details (Area in Ha)**

S. No.	Land Use	Within ML Area	Outside ML Area	Total
1	Agricultural Land	31.64	0.0	31.64
2	Forest Land	0.0	0.0	0.0
3	Wasteland	0.0	0.0	0.0
4	Grazing Land	0.0	0.0	0.0
5	Surface Water Bodies	3.6	0.0	3.6
6	Habitation	2.78	0.0	2.78
7	Road	1.4	0.0	1.4
8	Others (Barren & community land)	87.48	0.0	87.48
	<b>Total Project Area =</b>	<b>126.90</b>	<b>0.0</b>	<b>126.90</b>

**Post Mining (Area in Ha)**

	Land Use	Post Closure						
		Agricultural land	Plantation	Water Body	Public Use/ Company use	Forest Land (Returned)	Undisturbed	Total
1	Excavation Area <sup>#</sup>							<b>0.00</b>
1.a.	Backfilled Area	4.34	64.02					<b>68.36</b>
1.b.	Excavated Void			30.19				<b>30.19</b>
1.c.	Top Soil Dump *							<b>0.00</b>
1.d.	External dump **							<b>0.00</b>
2	Safety zone/ rationalisation area							<b>0.00</b>
3	Road diversion				0.36			<b>0.36</b>
4	Diversion/ below river/ nala/ canal			1.00				<b>1.00</b>

	Land Use	Post Closure						
		Agricultural land	Plantation	Water Body	Public Use/ Company use	Forest Land (Returned)	Undisturbed	Total
5	Road and Infrastructure area	2.50			1.50			4.00
6	Embankment				3.21			3.21
7	Green belt		9.96					9.96
8	Water reservoir near pit/ water body	1.00						1.00
9	Undisturbed / Mining right for UG						8.82	8.82
	<b>Total</b>	<b>7.84</b>	<b>73.98</b>	<b>31.19</b>	<b>5.07</b>	<b>0.00</b>	<b>8.82</b>	<b>126.90</b>

# Out of total excavated area of 98.55 ha, 68.36 ha shall be backfilled & 30.19 ha shall remain as mine void which will be converted into water body.

\* Temporary topsoil dump (over coal bearing area) to be removed

\*\* Temporary surface OB dump (over coal bearing area) to be removed

- (x) Total geological reserve reported in the mine lease area (126.90 ha) is 3.18 MT with 2.68 MT mineable reserve. Out of total mineable reserves, entire reserve is available for extraction. Percent of extraction is 84.28%.
- (xi) Three seams with thickness ranging from 0.15 m to 2.90 m are workable. Grade of coal is Insitu G5 & ROM G6, stripping ratio 8.15, while gradient is 3 to 7°.
- (xii) Method of mining operation envisages opencast method with shovel/ dumper in OB and FE loader/ dumper in coal shovel & dumper combination.
- (xiii) Life of mine have been reduced to 14 years from 45 years as previously approved.
- (xiv) The proposed project has one external OB dump, which will be initially outside the working quarry area but within ultimate pit limit and ML boundary. Initially, the overburden will be dumped on 10.50 ha with maximum height 30 m. After creation of sufficient void within the pit, internal dumping will commence (during 5<sup>th</sup> year itself and continue till the end). Total pure OB generated from the mine will be 21.34 Mcum out of which only 2.07 mcum will be required to be accommodated in the external dump, the rest 19.27 mcum will be backfilled in the de-coaled area. A crown dump of 30 m over an area of 21.1 ha over the backfilled area will also be created. The external dump will also be rehandled and backfilled from 11<sup>th</sup> to 14<sup>th</sup> year. There will be one temporary top soil dump of 4.5 ha with 0.51 McumB, which will be completely reutilized within the life of mine
- (xv) Total quarry area is 98.55 ha out of which backfilling will be done in 68.36 ha while final mine void will be created in an area of 30.19 ha with a depth of 35 m. Backfilled quarry area of 68.36 ha shall be reclaimed with plantation (64.02 ha) & Agricultural land (4.34 ha). Final mine void will be converted into water body.

- (xvi) Transportation of coal has been proposed by RD trucks from mine pit to the end use plant, initially. Later on, the coal will be transported by trucks to proposed captive spur (siding) along Kajri railway station, after its construction, at a distance of 3 km and from siding it will be transport through Railway.
- (xvii) Reclamation Plan in an area of 118.08 ha comprising of 68.36 ha of backfilled area. In addition to this, an area of 9.96 ha included in safety zone/ rationalisation area, has also been proposed for greenbelt development.
- (xviii) Zero hectare of forest land is reported to be involved in the 126.90 ha project.
- (xix) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been observed within 10 km boundary of the project.
- (xx) The ground water level has been reported to be varying between 5.55 m to 16.2 m during pre-monsoon and between 1.8 m to 14.6 m during post-monsoon. Total water requirement for the project is 154 KLD.
- (xxi) Application for obtaining the approval of the Central Ground Water Authority for mine dewatering has been submitted on 07.01.2020 and is under process.
- (xxii) Public hearing for the project of 0.2 MTPA capacity in an area of 405 ha was conducted on 04.05.2007 at Lohara Middle School, Lohara when the mine was allotted to M/s Usha martin Ltd. Major issues raised in the public hearing include employment, compensation and R&R, pollution control, impact on ground water etc.
- (xxiii) Consent to Establish for the project was obtained by prior allottee (Usha Martin Ltd.) from JSPCB on 20.09.2007 (expired) for an area of 405 ha. The project is yet to be implemented by new allottee i.e. Araanya Mines Pvt. Ltd. CTE will be obtained after suitable amendment in EC for project area in non forest land of 126.90 ha and several other statutory clearances.
- (xxiv) Hathikhar nala, which is seasonal in nature, is flowing through the ML from NE to SW. The nala will be diverted in consultation with the Water Resource Department of the State Government. Diversion will be required after 5 years of operation.
- (xxv) Regular monitoring of ambient air quality shall being carried out on fortnightly basis after commencement of operation. The documented report shall be submitted to RO, JSPCB and also to MoEF&CC along with half yearly EC compliance report.
- (xxvi) No court cases-violation cases are pending against the project (126.9 ha ML) or the PP.
- (xxvii)The project does not involve violation of the EIA Notification, 2006 and amendment issued thereunder.
- (xxviii)The coal production from the mine has not been started.
- (xxix) The project involves R&R for 100 houses in proposed ML area of 126.90 ha. It is a part of the total R&R project proposed for the whole Lohari Block. R&R of the PAPs will be done as per R&R plan.
- (xxx) Total cost of the project is about Rs. 70 Crores. Cost of production is Rs. 700/- per tonne., CSR cost will be 2% of the average profit of three years as per Companies Act, R&R cost will be Rs 23 crores, will be updated as per the Jharkhand R&R Policy & LARR. Capital Environment Management Cost is Rs.1 crores and recurring cost approximately Rs. 20 lakhs per annum. Apart from this, Rs. 6.6 crores have been provisioned in progressive mine closure plan for

garland drains, dams, toe walls, greenbelt developments, Reclamation/ Rehabilitation of mined out area etc.

(xxxii) Consent to operate (CTO) will be obtained from the State Pollution Control Board after receipt of EC amendment.

(xxxiii) There has been no Past Production

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

The proposal is for amendment in environmental clearance from 405 ha to 126.90 ha (removing forest out of the 405 ha project area) for Lohari Opencast Coal Project of 0.2 MTPA capacity in total project area of 405 ha of M/s Araanya Mines Pvt. Ltd. (AMPL) located in village Lohanra, Kathautia, Gareyadih and Garikhas, Tehsil Pandwa, District Palamu (Jharkhand).

Earlier, the environment clearance to the project was obtained under EIA Notification, 2006 vide Ministry's letter No J-11015/756/2007-IA.II (M) dated 13.03.2008 for 0.2 MTPA of coal production in mine project area of 405 ha to previous Lessee M/s Usha Martin Ltd. The EC was transferred to M/s Araanya Mines Ltd. on 10.06.2015.

The current proposal for amendment is for seeking permission for grant of operation in a non-forest area of 126.90 ha out of the 405 ha project area, for the first 14 years with the same production of 0.2 MTPA as sanctioned in EC dt.13.03.2008.

In view of the observation of EAC in its 53<sup>rd</sup> meeting held on 20<sup>th</sup> February, 2020, Project Proponent has submitted clarification from Ministry of Coal (MoC). MoC has issued an office memorandum no. F/No. 104/30/2015/NA dated 03.06.2020 wherein, after examination, it states at point 5 that "There appears to be no requirement to either surrender the remaining land for amendment in EC or to revise the vesting order as M/s Araanya Mines Pvt. Ltd. would be eventually doing the mining of whole coal block area in phase-wise manner after reconciliation of status of forest land with different State Government departments, subject to compliance of applicable rules and regulations."

Further, it states that MoC supports the intention of M/s Araanya Mines Pvt. Ltd. for phase-wise mining and that is why the Revised Mining Plan has been approved by the Ministry on 10.07.2019. M/s Araanya Mines Pvt. Ltd. will eventually do the mining in entire 405 ha. However, to expedite early production and operationalisation of block, ML is being sought only for non-forest land of 126.90 ha, in first phase, for which mining plan is also approved.

The revised Mine Plan was approved subject to the condition that the approval of Mine Plan shall not result in the changes in the terms and condition of Vesting/ Allotment Order. As soon as the status of forest land is reconciled between the different departments of the State Government, they shall undertake mining in total 405 ha by revising the Mining Plan. The OM requests the MoEF&CC to consider the proposal of M/s Araanya Mines Pvt. Ltd for amendment in EC for Lohari Coal Mine.

Project proponent submitted that there is no forest land beyond 85.30 ha in the project area of 405 ha and also 85.30 ha is out of proposed 126 ha of area for mining activity. There is no forest land in 126 ha of project area of which Mine Plan is approved. Clarity on forest land in rest of the area beyond 126 ha shall be brought to end by State Government

Earlier, Stage-I FC for Forest land of 85.30 ha for Lohari coal mine has been granted by Ministry on 3<sup>rd</sup> April, 2013 to M/s Usha Martin in Jharkhand and later it was transferred on 4<sup>th</sup> June, 2015 to M/s Aaranya Mines Private Limited in whose favour the coal block was re-allocated by Ministry of Coal.

Hathikhar nala, which is seasonal in nature, is flowing through the ML from NE to SW. The nala will be diverted in consultation with the Water Resource Department of the State Government. Diversion will be required after 5 years of operation

Application for obtaining the approval of the Central Ground Water Authority for mine dewatering has been submitted on 07.01.2020 and is under process

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

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

**56.7.4** *The EAC after deliberations observed that there is no forest land involved in the reduced of 126.90 ha and for this area, Mine Plan has been approved by Ministry of Coal. In view of the above, The EAC **recommended** the proposals for amendment in area from 405 ha to 126.90 ha (removing forest area of 85.90 ha and other areas out of the 405 ha project area) for Lohari Opencast Coal Project of capacity 0.2 MTPA in total project area of 126.90 ha of M/s Aaranya Mines Pvt. Ltd. (AMPL) located in village Lohanra, Kathautia, Gareyadih and Garikhas, Tehsil Pandwa, District Palamu (Jharkhand), 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) *The PP should get the clarification from the State Government on whether 85.90 ha land is*



*forest land or otherwise, and there is no forest land in the remaining area as per vesting/allotment order.*

- (ii) Validity of EC is life of the mine i.e. 14 years from the date of issue of approved letter (as per approved Mine Plan)*
- (iii) Mining Lease shall be executed for 126.90 ha only and no mining or ancillary work will be conducted in areas beyond 126.90 ha.*
- (iv) The project proponent shall obtain Consent to establish/operate from the State Pollution Control Boards for the proposed peak capacity of 0.2 MTPA (Peak) prior to commencement of the production.*
- (v) 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. The results along with the recommendation shall be presented before the EAC to assess the efficacy and adequacy of pollution control measures.*
- (vi) Top soil should be stored separately at marked area.*
- (vii) Transportation of coal from Coal Handling Plant shall be through mechanized covered trucks for 5 years. No transportation by trucks shall be allowed after 5 years and proposed railway siding should be constructed without any delay.*
- (viii) 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*
- (ix) Permission of diversion of Hathikhar nala shall be obtained from State Water Resource Department after detailed study on its impact on nearby areas.*
- (x) 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.*
- (xi) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.*
- (xii) Persons of nearby villages shall be given training on livelihood and skill development to make them employable*
- (xxi) Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles*
- (xxii) 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.*
- (xxiii) The activities and fund provisions for CER shall be made as per the guidelines issued by the ministry regarding CER on 1<sup>st</sup> May, 2018.*
- (xxiv) 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.*

- (xxv) 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 2<sup>nd</sup> August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.*
- (xxvi) 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 commenced 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.*
- (xxvii) 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.*
- (xxviii) 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".*
- (xxix) 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.*
- (xxx) 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 56.8**

**Semaria OCP of 2.00 MTPA (Normative) and 2.5 MTPA (Peak) in an ML area of 419.155 ha of M/s Northern Coalfields Limited in Harraiya, Chokra village, District Singrauli (Madhya Pradesh) – For Terms of Reference – reg.**

**56.8.1** The proposal is for Terms of Reference for Semaria project of 2.5 MTPA capacity in mine lease area of 419.155 ha of M/s Semaria located in village Chokra & Haraiya, Tehsil Singrauli, District Singrauli (Madhya Pradesh).

**56.8.2** 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 63/L/12 and is bounded by the geographical coordinates ranging from latitudes 24<sup>0</sup>7'12.67" to 24<sup>0</sup>8'44.49" North and longitudes 82<sup>0</sup>32'0.69" to 82<sup>0</sup>33'20.02" East
- (ii) Coal linkage of the project is proposed for: basket linkage
- (iii) Joint venture cartel has been formed: NO
- (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: NO
- (v) Employment generation, providing employment to displaced 89 nos (departmental) and Indirect
- (vi) The project is reported to be beneficial in terms of. Supplying coal to Thermal Power Plants and other basket consumers
- (vii) Total mining lease area as per block allotment is 419.155 ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved by the Board of Directors, NCL on 27.05.2019.

The land usage pattern of the project is as follows:

S.N.	LANDUSE	Within ML Area (ha)	Outside ML Area (ha)
1	Agricultural land	55.184	0
2	Forest land	333.155	0
3	Wasteland	0	0
4	Grazing land	0	0
5	Surface water bodies	0	0
6	Settlements	0	0
7	Others (specify) M.P.Govt. Land	30.816	0
	Total	419.155	0
	Total Project Area =	419.155	0
	Note : * No data is available for the project due to being a new one.		

**Pre-mining:**

Forest land (ha)	333.155
Govt Land (ha)	30.816
Tenancy Land (ha)	55.184
Total ha	419.155

**Post Mining**

S. No.	Land use	Land use (ha)				
		Plantation	Water Body	Public Use	Undisturbed	Total
1	External OB Dump	188.820	0	0	0	188.82
2	Top Soil Dump	Will be utilized for topping external dump and grow plants				
3	Excavation	76.400	0	0	0	76.40
4	Roads	0.000	0	21	0	21
5	Built-up Area	27.000	0	0	0	27
6	Green Belt	76.955	0	0	0	76.955
7	Undisturbed Area	0.000	0	0	0	0
8	Safety Zone Rationalization Area	0	0	0	0	0
9	Diversion Below River / Nala /Canal	0	0	0	0	0
10	Water Body	0	28.980	0	0	28.980
11	Staff Colony	0	0	0	0	0
	Total Area	369.175	28.980	21	0	419.155

- (viii) Total geological reserve reported in the mine lease area is 14.26 MT with 12.82 MT mineable reserve. Out of total mineable reserve of 12.82 MT, 12.82 MT are available for extraction. Percent of extraction is 89.90%.
- (ix) Purewa merged and Turra seams with thickness ranging from 0.80 to 17.35 m and 11.13 to 15.40 m respectively are workable. Grade of coal is G9 stripping ratio 1:7.48 while gradient is 3° to 4°.
- (x) Method of mining operations envisages coal extraction through Surface Miner and OB with Shovel- Dumper method.
- (xi) Life of mine is 11 years.
- (xii) The project has 2 nos external OB dumps in an area of 188.82 ha with 90.00 m height and 89.92 MCum of OB. 2 nos internal OB in an area of 76.40 ha with 6.02 MCum of OB is envisaged in the project.

- (xiii) Total quarry area is 105.375 ha out of which backfilling will be done in 76.40 ha while final mine void will be created in an area of 28.98 ha with a depth of 40 m. Backfilled quarry area of 76.40 ha shall be reclaimed with plantation. Final mine void will be converted into water body.
- (xiv) Transportation of coal has been proposed by dumpers in mine pit head, from surface to siding by dumpers and at sidings by Mechanical loading through RLS for basket consumers.
- (xv) Reclamation Plan in an area of 369.175 ha, comprising of 188.82 ha of external dump, 76.40 ha of internal dump 76.955 ha of green belt. In addition to this, an area of 27.00 ha, included in the safety zone/rationalization area, has also been proposed for green belt development.
- (xvi) 333.155 ha of forest land has been reported to be involved in the project. Approval under the Forest (Conservation) Act, 1980 for diversion of forest land for non-forestry purposes has been applied vide MoEF&CC letter No. dated : Applied for stage-I FC
- (xvii) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been reported with 10 km boundary of the project: No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones
- (xviii) The ground water level has been reported to be varying between 7.75 m to 10.35 m during pre-monsoon and between 4.90 m to 9.8 m during post-monsoon. : Total water requirement for the project is 236 m<sup>3</sup>/day.
- (xix) Application for obtaining the approval of the Central Ground Water Authority for has been submitted on 29th December, 2017: It will be taken up before start of the project.
- (xx) River/nalla is flowing boundary of lease. The nallah will be diverted in consultation with the Water Resource Department of the State Government: No river flowing in Mine Lease Area
- (xxi) No court cases, violation cases are pending against the project of the PP: No court cases, violation cases pending.
- (xxii) 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 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 : The project has not been started till now due to being a new one
- (xxiii) The project involves 750 nos. project affected families. R&R of the PAPs will be done as per R & R policy of the company.
- (xxiv) Total cost of the project is Rs. 396.58 crores. Cost of production is Rs. 1231.02 /- per tonne., CSR cost - As per CIL CSR policy, the fund for CSR should be allocated based on 2% of Average Net profit of the Company for the 3 immediate preceding years or Rs. 2/tonne of coal production for previous year whichever is higher., R&R cost Rs 68.97 crore. Environment Management Cost is Rs. 82.30 crore.

### **56.8.3 The EAC during deliberations noted the following:-**

The proposal is for Terms of Reference for Semaria project of 2.5 MTPA capacity in mine lease area of 419.155 ha of M/s Semaria located in village Chokra & Haraiya, Tehsil Singrauli, District Singrauli (Madhya Pradesh).

Total mining lease area as per block allotment is 419.155 ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved by the Board of Directors, NCL on 27.05.2019

333.155 ha of forest land has been reported to be involved in the project. Approval under the Forest (Conservation) Act, 1980 for diversion of forest land for non-forestry purposes has been applied proposal no. FP/MP/MJN/23659/201 7 DFO, Singrauli forwarded the application to CCF, Rewa on 2 1.05.2020 CCF, Rewa forwarded the application to Nodal Office, Bhopal on 0 1.07.2020 Online Timeline details enclosed

Project Proponent, instead of Pre-feasibility report (PFR) as per Ministry's guidelines submitted its Project report on PARIVESH Portal is not acceptable. Later PFR report as per guidelines was submitted to the Ministry.

**56.8.4** *The EAC after deliberating the proposal observed that PP is not following the Ministry's guidelines while applying the proposal for Tor. The EAC has asked PP to submit the PFR first as per Ministry's guidelines and thereafter **recommends** the proposal for grant of Terms of Reference to Semaria OCP of 2.00 MTPA (Normative) and 2.5 MTPA (Peak) in an ML area of 419.155 ha of M/s Northern Coalfields Limited in Harraiya, Chokra village, District Singrauli (Madhya Pradesh) 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.*

- *EAC sub-committee shall visit the site and submit its recommendations for the additional conditions to PP for protecting river Damodar and overall environment management of the mine.*
- *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.*
- *Stage-I clearance for the entire forestland involved the project shall be obtained before making an application for the environmental clearance*
- *PP shall submit the compliance of Mine Closure Plan and further reclamation status/process conducted in Mine Closure Report.*
- *Clarification from District Forest Officer that mine does not falls under corridors of Kaimur Wildlife Sanctuary, Sanjay Dubri Wildlife Sanctuary and Guru Ghasi Das (Sanjay) National Park and Tamorpingla Wildlife Sanctuary.*
- *Cumulative Environment Impact Assessment of all the mines present in 10 km of buffer zone shall be carried and mitigation measures shall be proposed accordingly to arrive at a comprehensive picture and planning of adequate environmental safeguards.*
- *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.*
- *Detailed Impact study on water quality, the aquifers and water table with respect to Govind Vallabh Pant Sagar/Rihand reservoir and Mitigation measures shall be proposed.*
- *Inpit conveyor belt with silo loading should be proposed and installed for transportation of coal till railway siding. No road transportation will be allowed in SPAs area of Singrauli.*

- *Mitigation plan to avoid Human-Wildlife Conflict should be prepared scientifically with the help of Wildlife Experts*
- *No non-mining activity/ancillary activity shall be proposed in forest area*
- *Project proponent to prepare Environmental Cost Benefit Analysis for the project in EIA/EMP Report.*
- *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.*
- *Permission for ground water withdrawal shall be obtained from Central Ground Water Authority (CGWA), if applicable.*
- *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.*
- *Details of court cases and the compliance status (if any)*
- *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*

## **Agenda 56.9**

**Chotia-I Coal Mine of 0.75 MTPA (change in the method of mining and part of area from UG to OC in an ML area of 110.1.03 ha of M/s Bharat Aluminium Company Limited at Chotia and Bania villages, Podiuprodha Tehsil, Korba District, (Chhattisgarh) - For Terms of Reference – reg.**

**56.9.1** The proposal is for Terms of Reference for Chotia-I Coal Mine of 0.75 MTPA (change in the method of mining and part of area from UG to OC in an ML area of 110.1.03 ha of M/s Bharat Aluminium Company Limited at Chotia and Bania villages, Podiuprodha Tehsil, Korba District, (Chhattisgarh).

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

- Location of mine: Chotia Coal Mines, (Hasdeo Arand Coalfield), M/s Bharat Aluminium Co. Ltd.
- If a Joint venture, the names & addresses of the JV partners including their share: Not applicable
- Details of coal linkage: Coal will be used to partially meet the coal requirement of 2010 MW Captive Power Plant of BALCO at Korba.
- Whether the project is in the Critically Polluted Area (CPA): No
- Cost of the project: Rs. 240 Crores
- Employment generated/to be generated: About 1648 people will get direct and indirect employment during the entire life of the project.
- Benefits of the project:

- Improvement in physical infrastructure like Road Transport facilities, Housing facilities, Water supply and sanitation, Power, Medical facilities, Community development etc.
- Improvement in social infrastructure like Trade and Commerce etc.
- Other tangible benefits like indirect employment opportunities to local people in contractual works like housing construction, transportation, sanitation, for supply of goods and services to the project and other community services. Improvement in communication, transport, education, community development and medical facilities.

(viii) Whether new or expansion project: Modernization

(ix) If expansion, please indicate the number and date of the certified Compliance Report of Regional Office of the MoEF: The certified compliance obtained from Regional Office of the MoEF&CC vide letter F.No.3-/2005(ENV) dated 22<sup>nd</sup> October 2018.

(x) No. and Date of the ToR letter issued by the MoEF (if this is a case for EC): Not applicable

(xi) No. and Date of the EC letter issued by the MoEF (if this is a case for reconsideration. If so, what specific reconsideration(s) being sought by the proponent): Not applicable

(xii) Type of Mine: Underground and Open caste coal mine

(xiii) Capacity of the mine applied for: 0.75 MTPA

(xiv) ML Area:

(a) As per block allotment: 1101 ha

(b) As per approved mine plan: 863 ha

(xv) Date of approval of mine plan, mine closure plan, status & date: Mining Plan (4<sup>th</sup> Revision) was submitted to Ministry of Coal and it was approved vide no. 34011/07/2019-CPAM dated 01<sup>st</sup> July, 2019.

(xvi) Date of Board's approval: Mining Plan (4<sup>th</sup> Revision) was submitted to Ministry of Coal and it was approved vide no. 34011/07/2019-CPAM dated 01<sup>st</sup> July, 2019

(xvii) Date of Ground water clearance: Ground water withdrawal permission has been obtained from Central Groundwater Authority vide letter NOC No: CGWA/NOC/MIN/REN/1/2018/5555 on 20<sup>th</sup> December 2018

(xviii) Date of mine closure approval: Mine closure plan is included in mining plan (4<sup>th</sup> Revision) dated 1<sup>st</sup> July 2019.

(xix) Any river/Nallah flowing near or adjacent to the proposed mine. If yes, please give details: Not applicable.

(xx) Method of mining: Opencast mechanized mining by shovel dumper combination and underground by Bord and Pillar method.

(xxi) Life of mine: 23 Years (Including both sub-blocks, Chotia I and II)

(xxii) Whether ambient air quality seasonal data has been documented. If so, from which season to which season and whether the results are within the prescribed limits: Not applicable

(xxiii) Whether the certificate of compliance of earlier EC from MoEF Regional Office has been obtained, if the proposal is for expansion: Not applicable,

(xxiv) The proposal is for change in the approved method of mining and part of area proposed for underground mining is now proposed to be mined by opencast method.

(xxv) The certified compliance obtained from Regional Office of the MoEF&CC vide letter F.No.3-/2005 (ENV) dated 22<sup>nd</sup> October 2018.



(xxvi) Details of Land usage: Land use Details

Sr. No.	Particular	Land use during mining	Land use post mining (Ha)				
		Area (Ha)	Plantation	Water Body	Public Use	Un disturbed	Total
1	External OB Dump	0.0	0.00	0	0	0	0
2	Top Soil Dump	4.00	4.00	0	0	0	4.00
3	Excavation	220.86	220.86	0	0	0	220.86
4	Roads	6.82	6.82	0	0	0	6.82
5	Built Up Area	29.52	29.52	0	0	0	29.52
6	Green Belt Area	297.97	297.97	0	0	0	297.97
7	Un disturbed Area	303.83	0	0	0	303.83	303.83
	TOTAL	863.00	557.17	0	0	303.83	863.00

(xxvii) Details of Forest issues:

- Total forest area involved (in ha) for mining: 643.46 ha
- Status of Forest Clearance: Forest Clearance (Stage-II) obtained vide letter no F.No.08-64/2005-FC dated 18.05.2015
- Extent of forest land in the project (including safety zone and all types of forest land) (in ha): 643.46 ha
- Total forest land for which Stage-1 FC is available (give area in ha), provide breakup of this area in following format: Not applicable The forest land of 643.46 ha is involved and for which Forest clearance (Stage-II) obtained vide letter no F.No.08-64/2005-FC dated 18.05.2015

(xxviii) Details of wild life issues involved, if any. If so, whether WL management plan has been prepared and pl. indicate the status: Not applicable

(xxix) Costs of the project: Total capital Cost: 240 Crores

(xxx) Details of transportation of coal

- In pit: The coal from Chotia-I mine will be transported to end user plant by road with 35 Tonner Truck.

(xxxi) Details of reclamation: This is an opencast & underground mine. Afforestation/ green belt development takes place on the open surface within leasehold areas.

(xxxii) Legal Issues:

- Any court cases pending. If so, please provide a list with details as annexure: No
- Any violation cases pending. If so, please provide a list with details as annexure: No

(xxxiii) Give details of actual coal production vis-à-vis sanctioned capacity since the inception of mine in following format:

Year	EC sanctioned capacity (MTPA)	Actual production (MTPA)	Excess production beyond the EC sanctioned capacity
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2014-15	0.75	0	0
2015-16	0.75	0.119	0
2016-17	0.75	0.179	0
2017-18	0.75	0	0
2018-19	0.75	0	0
2019-20	0.75	0	0

*\*The raw coal throughput figures are given as Annexure-i*

### **56.9.3** The EAC during deliberations noted the following :-

The proposal is for terms of reference to Chotia-I Coal Mine of 0.75 MTPA (change in the method of mining and part of area from UG to OC in an ML area of 110.1.03 ha of M/s Bharat Aluminium Company Limited at Chotia and Bania villages, Podiuprodha Tehsil, Korba District, (Chhattisgarh).

Mining Plan (4<sup>th</sup> Revision) was submitted to Ministry of Coal and it was approved vide no. 34011/07/2019-CPAM dated 01<sup>st</sup> July, 2019

Earlier the proposal was considered by EAC in its meeting held on 24<sup>th</sup> January, 2019 for revalidation of EC based on Ministry's Notification dated 6<sup>th</sup> April, 2018 and it was noted that PP has not complied those observations yet. However now PP wants a fresh ToR for change in method of mining i.e. from UG to OCP.

**56.9.4** *The EAC after deliberations at the first instance observed that since 1 year and 7 months, PP has not complied the observation of EAC for revalidation of EC which is gross negligence of comments of EAC. Further mining activity is being carried over without revalidated EC. EAC did not agreed to take forward the proposal of ToR and insisted on compliance of revalidation of EC. Instead of compliance, PP has applied proposals of terms of reference for change in mining method from Underground to Opencast is not acceptable. EAC desired that PP must comply all the requirements of revalidation and revalidates its EC under EIA Notification, 2006.*

*Further, it is noted that one of the observation during previous revalidation appraisal Public Hearing was advised, however since Public Hearing was already conducted in 2004 for the project and a TOR proposal is also pending for modification/change in methodology. Therefore, It was desired that like in many other proposals, instead of Public Hearing for revalidation, PP shall issue Public Notice through the State Pollution Control Board for information of stakeholders for the proposed revalidation proposal inviting comments and their redressal. The PP shall submit the compliance of issues raised in Public Notice and also compliance of Public Hearing conducted in 2004. The proposal for ToR for modification/change in methodology will be considered by EAC after revalidation of EC considered and, if need be, PH will be desired at that stage.*

*The proposal was accordingly returned for compliance observation of EAC*

#### **Agenda 56.10**

**Talabira II and III OCP of 20 MTPA (Normative)/23 MTPA (Peak) in an area of 1914.063 ha of M/s NLC India Limited in District Sambalpur & Jharsuguda (Odisha) - For Terms of Reference –**

PP vide its letter no. NLC/CGM/Talabira Project/2020/1088 dated 22<sup>nd</sup> June, 2020, to Member Secretary (Coal Mining Sector) has requested to withdraw the proposal. PP submitted that the proposal has already been granted EC on 11<sup>th</sup> October, 2018 itself.

EAC accepted withdrawal letter of project proponent and **returned the proposal as it is.**

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

**\*\*\*\*\***

**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 PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>. 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 25<sup>th</sup> 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 PM<sub>10</sub>/PM<sub>2.5</sub>)

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 25<sup>th</sup> 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 27<sup>th</sup> 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 27<sup>th</sup> 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 29<sup>th</sup> 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 1<sup>st</sup> 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; PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> (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 29<sup>th</sup> 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.

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**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, SO<sub>2</sub> and NO<sub>x</sub>. 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 3<sup>rd</sup> 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 29<sup>th</sup> 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 1<sup>st</sup> 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.

#### **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.

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**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 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, SO<sub>2</sub> and NO<sub>x</sub>. 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 PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>. 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 m<sup>3</sup>/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 29<sup>th</sup> 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 1<sup>st</sup> 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.

#### **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; PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> (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. 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.
- xv. 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.
- xvi. 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.

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**Generic ToR for coal washery**

- i. Siting of washery is critical considering to its environmental impacts. Preference should be given to the site located at pit head; in case such a site is not available, the site should be as close to the pit head as possible and coal should be transported from mine to the washery preferably through closed conveyer belt to avoid air pollution.
- ii. The washery shall not be located in eco-sensitive zones areas.
- iii. The washery should have a closed system and zero discharge. The storm drainage should be treated in settling ponds before discharging into rivers/streams/water bodies.
- iv. A thick Green belt of about 50 m width should be developed surrounding the washery.
- v. A brief description of the plant alongwith a layout, the specific technology used and the source of coal should be provided.
- vi. The EIA-EMP Repot should cover the impacts and management plan for the project of the capacity for which EC is sought and the impacts of specific activities, including the technology used and coal used, on the environment of the area (within 10km radius), and the environmental quality of air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts for the rated capacity. Cumulative impacts for air and water should be a part of EIA in case coal mine, TPP and other washeries are located within 10km radius. The EIA should also include mitigative measures needed to minimize adverse environmental impacts.
- vii. A Study Area Map of the core zone as well as the 10km area of buffer zone showing major industries/mines and other polluting sources should be submitted. These maps shall also indicate the migratory corridors of fauna, if any and areas of endangered fauna; plants of medicinal and economic importance; any ecologically sensitive areas within the 10 km buffer zone; the shortest distance from the National Park/WL Sanctuary Tiger Reserve, etc. alongwith the comments of the Chief Wildlife Warden of the State Govt.
- viii. Data of one-season (non-monsoon) primary- base-line data on environmental quality of air (PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub> and NO<sub>x</sub>, noise, water (surface and groundwater), soil be submitted.
- ix. The wet washery should generally utilize mine water only. In case mine water is not available, the option of storage of rain water and its use should be examined. Use of surface water and ground water should be avoided.
- x. Detailed water balance should be provided. The break-up of water requirement as per different activities in the mining operations vis-a-vis washery should be given. If the source of water is from surface water and/or ground water, the same may be justified besides obtaining approval of the Competent Authority for its drawl.
- xi. The entire sequence of mineral production, transportation, handling, transfer and storage of mineral and waste, if any, and their impacts on air quality should be shown in a flow chart with specific points where fugitive emissions can arise and specific pollution control/mitigative measures proposed to be put in place. The washed coal and rejects should be transport by train as far as possible. Road transport of washed coal and rejects should



generally be avoided. In case, the TPP is within 10km radius, it should be through conveyer belt. If transport by rail is not feasible because of the topography of the area, the option for transport by road be examined in detail and its impacts along with the mitigation measures should be clearly brought out in EIA/EMP report.

- xii. Details of various facilities proposed to be provided in terms of parking, rest areas, canteen etc. to the personnel involved in mineral transportation, workshop and effluents/pollution load from these activities should be provided.
- xiii. Impacts of CHP, if any, on air and water quality should also be spelt out alongwith Action Plan.
- xiv. O.M.no.J-II0I3/25/2014-IA.I dated 11<sup>th</sup> August, 2014 to be followed with regard to CSR activities.
- xv. Details of Public Hearing, Notice(s) issued in newspapers, proceedings/minutes of Public Hearing, points raised by the general public and response/commitments made by the proponent along with the Action Plan and budgetary provisions be submitted in tabular form. If the Public Hearing is in the regional language, an authenticated English translation of the same should be provided. Status of any litigations/ court cases filed/pending, if any, against the project should be mentioned in EIA.
- xvi. Analysis of samples indicating the following be submitted:
  - Characteristics of coal prior to washing (this includes grade of coal, other characteristics of ash, S and heavy levels of metals such as Hg, As, Pb, Cr etc).
  - Characteristics and quantum of coal after washing.
  - Characteristics and quantum of coal rejects.
- xvii. Details of management/disposal/use of coal rejects should be provided. The rejects should be used in TPP located close to the washery as far as possible. If TPP is within a reasonable distance (10 km), transportation should be by conveyor belt. If it is far away, the transportation should be by rail as far as possible.
- xviii. Copies of MOU/Agreement with linkages (for stand-alone washery) for the capacity for which EC is being sought should be submitted.
- xix. Corporate Environment Responsibility:
  - a) The Company must have a well laid down Environment Policy approved by the Board of Directors.
  - b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.
  - c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.
  - d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.
- xx. A detailed action Plan for Corporate Social Responsibility for the project affected people and people living in and around the project area should be provided.

- xxi. Permission of drawl of water shall be pre-requisite for consideration of EC.
- xxii. Wastewater /effluent should confirm to the effluent standards as prescribed under Environment (Protection) Act, 1986
- xxiii. Details of washed coal, middling and rejects along with the MoU with the end-users should be submitted.

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

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

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

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

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

Sl. No.	Landuse	Within 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 (PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub>, NO<sub>x</sub> and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil - along with one-season met data coinciding with the same season for AAQ collection period should be provided.
- (xv) Map (1: 50, 000 scale) of the study area (core and buffer zone) showing the location of various sampling stations superimposed with location of habitats, other industries/mines, polluting sources, should be provided. The number and location of the sampling stations in both core and buffer zones should be selected on the basis of size of lease/project area, the proposed impacts in the downwind (air)/downstream (surface water)/groundwater regime (based on flow). One station should be in the upwind/upstream/non-impact/non-polluting area as a control station. The monitoring should be as per CPCB guidelines and parameters for water testing for both ground water and surface water as per ISI standards and CPCB classification wherever applicable. Observed values should be provided along with the specified standards.
- (xvi) Study on the existing flora and fauna in the study area (10km) should be carried out by an institution of relevant discipline. The list of flora and fauna duly authenticated separately for the core and study area and a statement clearly specifying whether the study area forms a part of the migratory corridor of any endangered fauna should be given. If the study area has endangered flora and fauna, or if the area is occasionally visited or used as a habitat by Schedule-I species, or if the project falls within 15 km of an ecologically sensitive area, or used as a migratory corridor then a Comprehensive Conservation Plan along with the

appropriate budgetary provision should be prepared and submitted with EIA-EMP Report; and comments/observation from the CWLW of the State Govt. should also be obtained and furnished.

- (xvii) Details of mineral reserves, geological status of the study area and the seams to be worked, ultimate working depth and progressive stage-wise working scheme until the end of mine life should be provided on the basis of the approved rated capacity and calendar plans of production from the approved Mining Plan. Geological maps and sections should be included. The Progressive mine development and Conceptual Final Mine Closure Plan should also be shown in figures. Details of mine plan and mine closure plan approval of Competent Authority should be furnished for green field and expansion projects.
- (xviii) Details of mining methods, technology, equipment to be used, etc., rationale for selection of specified technology and equipment proposed to be used vis-à-vis the potential impacts should be provided.
- (xix) Impact of mining on hydrology, modification of natural drainage, diversion and channeling of the existing rivers/water courses flowing through the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon.
- (xx) Detailed water balance should be provided. The break-up of water requirement for the various mine operations should be given separately.
- (xxi) Source of water for use in mine, sanction of the Competent Authority in the State Govt. and impacts vis-à-vis the competing users in the upstream and downstream of the project site. should be given.
- (xxii) Impact of mining and water abstraction from the mine on the hydrogeology and groundwater regime within the core zone and 10 km buffer zone including long-term monitoring measures should be provided. Details of rainwater harvesting and measures for recharge of groundwater should be reflected in case there is a declining trend of groundwater availability and/or if the area falls within dark/grey zone.
- (xxiii) Impact of blasting, noise and vibrations should be given.
- (xxiv) Impacts of mining on the AAQ and predictions based on modeling using the ISCST-3 (Revised) or latest model should be provided.
- (xxv) Impacts of mineral transportation within the mining area and outside the lease/project along with flow-chart indicating the specific areas generating fugitive emissions should be provided. Impacts of transportation, handling, transfer of mineral and waste on air quality, generation of effluents from workshop etc, management plan for maintenance of HEMM and other machinery/equipment should be given. Details of various facilities such as rest areas and canteen for workers and effluents/pollution load emanating from these activities should also be provided.
- (xxvi) Effort be made to reduce/eliminate road transport of coal inside and outside mine and for mechanized loading of coal through CHP/ Silo into wagons and trucks/tippers.
- (xxvii) Details of waste OB and topsoil generated as per the approved calendar programme, and their management shown in figures as well explanatory notes tables giving progressive development and mine closure plan, green belt development, backfilling programme and conceptual post mining land use should be given. OB dump heights and terracing based on

- (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.

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

Table 2 : Stage Wise Cumulative Plantation

[illegible]

6.	20 <sup>th</sup> year										
7.	25 <sup>th</sup> year										
8.	30 <sup>th</sup> year										
9.	34 <sup>th</sup> year(end of mine life)										
10.	34- 37 <sup>th</sup> Year (Post- mining)										

\* As a representative example

- (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.

- (xxxvi) Cost of EMP (capital and recurring) should be included in the project cost and for progressive and final mine closure plan.
- (xxxvii) Details of R&R. Detailed project specific R&R Plan with data on the existing socio-economic status of the population (including tribals, SC/ST, BPL families) found in the study area and broad plan for resettlement of the displaced population, site for the resettlement colony, alternate livelihood concerns/employment for the displaced people, civic and housing amenities being offered, etc and costs along with the schedule of the implementation of the R&R Plan should be given.
- (xxxviii) CSR Plan along with details of villages and specific budgetary provisions (capital and recurring) for specific activities over the life of the project should be given.
- (xxxix) Corporate Environment Responsibility:
- The Company must have a well laid down Environment Policy approved by the Board of Directors.
  - 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.
  - 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.
  - 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			
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**GENERIC TORs FOR AN UNDERGROUND COALMINE PROJECT**

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

S.N	ML/Project Land use	Area under Surface Rights(ha)	Area Under Mining Rights (ha)	Area under Both (ha)

1.	Agricultural land			
2.	Forest Land			
3.	Grazing Land			
4.	Settlements			
5.	Others (specify)			

#### Area under Surface Rights

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

- (viii) Study on the existing flora and fauna in the study area (10km) should be carried out by an institution of relevant discipline. The list of flora and fauna duly authenticated separately for the core and study area and a statement clearly specifying whether the study area forms a part of the migratory corridor of any endangered fauna should be given. If the study area has endangered flora and fauna, or if the area is occasionally visited or used as a habitat by Schedule-I species, or if the project falls within 15 km of an ecologically sensitive area, or used as a migratory corridor then a Comprehensive Conservation Plan along with the appropriate budgetary provision should be prepared and submitted with EIA-EMP Report; and comments/observation from the CWLW of the State Govt. should also be obtained and furnished.
- (ix) Details of mineral reserves, geological status of the study area and the seams to be worked, ultimate working depth and progressive stage-wise working scheme until the end of mine life should be provided on the basis of the approved rated capacity and calendar plans of production from the approved Mining Plan. Geological maps and sections should be included. The Progressive mine development and Conceptual Final Mine Closure Plan should also be shown in figures. Details of mine plan and mine closure plan approval of Competent Authority should be furnished for green field and expansion projects.
- (x) Details of mining methods, technology, equipment to be used, etc., rationale for selection of specified technology and equipment proposed to be used vis-à-vis the potential impacts should be provided.
- (xi) Impact of mining on hydrology, modification of natural drainage, diversion and channeling of the existing rivers/water courses flowing through the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon.
- (xii) One-season (other than monsoon) primary baseline data on environmental quality - air (PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub>, NO<sub>x</sub> and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil - along with one-season met data coinciding with the same season for AAQ collection period should be provided.

- (xiii) Map (1: 50, 000 scale) of the study area (core and buffer zone) showing the location of various sampling stations superimposed with location of habitats, other industries/mines, polluting sources, should be provided. The number and location of the sampling stations in both core and buffer zones should be selected on the basis of size of lease/project area, the proposed impacts in the downwind (air)/downstream (surface water)/groundwater regime (based on flow). One station should be in the upwind/upstream/non-impact/non-polluting area as a control station. The monitoring should be as per CPCB guidelines and parameters for water testing for both ground water and surface water as per ISI standards and CPCB classification wherever applicable. Observed values should be provided along with the specified standards.
- (xiv) Impact of mining and water abstraction from the mine on the hydrogeology and groundwater regime within the core zone and 10 km buffer zone including long-term monitoring measures should be provided. Details of rainwater harvesting and measures for recharge of groundwater should be reflected in case there is a declining trend of groundwater availability and/or if the area falls within dark/grey zone.
- (xv) Study on subsidence including modeling for prediction, mitigation/prevention of subsidence, continuous monitoring measures, and safety issues should be carried out.
- (xvi) Detailed water balance should be provided. The break up of water requirement as per different activities in the mining operations, including use of water for sand stowing should be given separately. Source of water for use in mine, sanction of the Competent Authority in the State Govt. and impacts vis-à-vis the competing users should be provided.
- (xvii) Impact of choice of mining method, technology, selected use of machinery and impact on air quality, mineral transportation, coal handling & storage/stockyard, etc, Impact of blasting, noise and vibrations should be provided.
- (xviii) Impacts of mineral transportation within the mining area and outside the lease/project along with flow-chart indicating the specific areas generating fugitive emissions should be provided. Impacts of transportation, handling, transfer of mineral and waste on air quality, generation of effluents from workshop etc, management plan for maintenance of HEMM and other machinery/equipment should be given. Details of various facilities such as rest areas and canteen for workers and effluents/pollution load emanating from these activities should also be provided.
- (xix) Effort be made to reduce/eliminate road transport of coal inside and outside mine and for mechanized loading of coal through CHP/ Silo into wagons and trucks/tippers.
- (xx) Details of various facilities to be provided to the workers in terms of parking, rest areas and canteen, and effluents/pollution load resulting from these activities should also be given.
- (xxi) The number and efficiency of mobile/static water sprinkling system along the main mineral transportation road inside the mine, approach roads to the mine/stockyard/siding, and also the frequency of their use in impacting air quality should be provided.
- (xxii) Impacts of CHP, if any on air and water quality should be given. A flow chart showing water balance along with the details of zero discharge should be provided.
- (xxiii) Conceptual Final Mine Closure Plan and post mining land use and restoration of land/habitat to the pre- mining status should be provided. A Plan for the ecological restoration of the mined out area and post mining land use should be prepared with detailed cost provisions.

Impact and management of wastes and issues of re-handling (wherever applicable) and backfilling and progressive mine closure and reclamation should be furnished.

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

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

Total /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			

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

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

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7/31/2020

Email

Email

munna.shah@gov.in

**Re: Draft MoM of 56th EAC held on 30th June, 2020**

**From :** gpkundargi@gmail.com Fri, Jul 31, 2020 01:18 PM  
**Subject :** Re: Draft MoM of 56th EAC held on 30th June, 2020 📎 1 attachment  
**To :** Munna Kumar Shah <munna.shah@gov.in>

Dear Munna Kumar Shah ji,  
At 56.5.3 I have deleted/cut some words without changing the meaning of contents.  
Please incorporate these changes. The draft Minutes are approved accordingly.  
You may go ahead with further needful.  
Thank you  
Kundargi

On Thu, Jul 30, 2020 at 5:54 PM Munna Kumar Shah <[munna.shah@gov.in](mailto:munna.shah@gov.in)> wrote:

Dear sir

The undersigned is directed to send the Draft MoM of 56th EAC held on 30th June, 2020. The proposed correction/modification has been included in the Draft Minutes.

Earlier the draft minutes was circulated on 10th July, to all the members. Subsequently, comments were received from the members that minutes are in order. The draft minutes have been submitted to the Dr. Navin Chandra Sir (the then Chairman-EAC) for seeking approval of draft minutes. However, we are unable to reach him through either e-mail or phone. The matter has been discussed in the Ministry. As you were present in the EAC meeting and now currently the Chairman of the EAC (Coal Mining), it was decided in the Ministry to seek your approval of the Minutes for uploading on PARIVESH Portal.


In view of the above, the draft Minutes are hereby enclosed with for your kind perusal and approval pls

Thank you

Regards

Munna Kumar Shah  
Scientist D



 **Draft MOM 56th of EAC - 30-06-2020.doc**  
591 KB



