

MINUTES OF 11th MEETING OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENT APPRAISAL OF COAL MINING PROJECTS HELD DURING 8th & 9th MAY, 2024 THROUGH HYBRID MODE.

At the outset, the Chairman welcomed the Expert members & other participants and requested to start the proceeding as per the agenda adopted for this meeting. The list of Members who participated in the meeting is at ANNEXURE VIII. The Standard/Generic EC & ToR conditions shall be system generated through the Parivesh Portal.

Confirmation of the Minutes of the 10th Meeting of the EAC (Coal): The minutes of the 10th Meeting of the EAC (Coal) held during 9th April 2024 have been confirmed by the Chairman.

Agenda No. 11.1

Proposal for Revalidation of Environmental Clearance of Singhali Underground Coal Mine Project; located at village- Singhali, Tehsil- Korba/Katghora District- Korba, State- Chhattisgarh (ML area 862.289 Ha, capacity 0.42 MTPA) by South Eastern Coalfields Limited– Regarding Revalidation of EC as per S.O. No. 1530(E) dated 06/04/2018

[Proposal No. IA/CG/CMIN/7650/2005; File No. J-11015/179/2005-IA. II(M) Consultant: CMPDIL; NABET Certificate No. NABET/EIA/2124/RA 0258; Valid till 22.08.2024]

11.1.1: Singhali Underground Coal Mine has made an online application vide proposal no. IA/CG/CMIN/7650/2005 Dated 08.09.2018 seeking revalidation of Environment Clearance (EC) as per notification S.O. 1530(E) dated 6.04.2018 and under the EIA Notification, 2006, as amended, for the project. The proposed project activity is listed at schedule no. (1) Under Category “A” of the schedule of the EIA Notification, 2006 accordingly appraised at Central Level.

The present proposal of Singhali Underground Coal Mine Project, located in Singhali Village of, Korba/Katghora Tehsil, Korba District, Chhattisgarh State is for obtaining revalidation of EC under EIA Notification, 2006 in compliance of the Gazette Notification S.O. 1530(E) dated 06.04.2018, for the existing project which has already obtained EC vide letter no. J-11015/179/2005-IA.II(M) dated 09.05.2006 for a production capacity of 0.42 MTPA in a leasehold area of 862.289 ha.

Earlier, the project was considered in the 44th EAC meeting held on 25.04.2019 wherein the committee deferred the proposal for want of additional information. PP later submitted the information in the PARIVESH2.0 portal and the proposal was considered in the 3rd

EAC meeting held on 16th and 17th November 2023 and the proposal was deferred for want of additional information. Further, the Committee observed that PP did not submit a reply w.r.t. the observation of the earlier EAC (deferred in the 44th EAC meeting dated 25.04.2019) on online proposal no. IA/CG/CMIN/7650/2005; instead applied a new proposal with compliance on PARIVESH-2.0 vide proposal no. IA/CG/CMIN/449593/2023. Accordingly, the Committee asked PP to submit a detailed reply on their earlier proposal number IA/CG/CMIN/7650/2005 available on PARIVESH-1.0 for further consideration instead of a new application. PP submitted the ADS reply vide letter dated 24.02.2024 and after uploading the complete documents on the PARIVESH-1.0 portal the proposal is now placed in the 11th EAC meeting scheduled for 8-9 May 2024.

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

11.1.2.1: Location:

- i) The project area is covered under Survey of India Topo Sheet No. 64J/11 and is bounded by the geographical coordinates ranging from 22°25'3" to 22°26'52" N latitudes and 82°32'39" to 82°35'18" E longitudes.
- ii) The project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC vide its OM dated 13th January 2010 has imposed a moratorium on the grant of Environment Clearance.

11.1.2.2: Forest Area: PP Submitted that the project involved a total of 301.48 ha of forest land and Forest Clearance was obtained vide no. 8-91/94 FC dt. 27/28.03.1995. PP further submitted that the extent of forest land in the project (including the safety zone and all types of forest land) is 301.48 Ha, and there is no broken forest land and no violation of Forest Conservation Act, 1980.

11.1.2.3: Protected Area: PP Submitted that the project is not located within 10 km of any ESZ/ESA/National Park/Wildlife Sanctuary/Biosphere reserve/Tiger reserve/Elephant reserve/Tiger Corridor/Elephant Corridor etc. However, there is a presence of Schedule-I species. PP further submitted that the Wildlife conservation plan has been prepared by TFRI Jabalpur and the report has been submitted to the State Forest Department for approval and further issuing of demand note for deposition of the wildlife conservation fund.

11.1.2.4: Previous Approvals: PP submitted that the project was granted EC vide letter no. J-11015/298/94-IA. II(M), dated 20.02.1995 for a production capacity of 0.24 MTPA

and vide letter no. J-11015/179/2005-IA. II(M) dated 09.05.2006 for expansion in production capacity to 0.42 MTPA in an area of 862.289 Ha under EIA 1994.

11.1.2.5: Mining Lease: PP submitted that the mining lease for the block was granted vide S.O. 1500 dated 07.05.1990 for an area of 862.289 Ha with lease expiry co-terminus with mining.

11.1.2.6: Mining Plan: PP Submitted that the mining plan/project report of the mine for 0.24 MTPC was approved on 21.10.1989 and the proposal for expansion from 0.24 to 0.42 MTPA was approved on 28.03.2005. PP further submitted that the Progressive Mine Closure Plan for 0.42 MTPA was approved on 18.05.2013.

11.1.2.7: Method of Mining: PP submitted the following:

- (i) The method of Mining to be adopted shall be underground. The capacity of the mine applied for is 0.42 MTPA. Excavation of Coal is through a semi-mechanized Board and Pillar for the development of panels with LHDs and UDM.
- (ii) Total minable reserve reported in the mine lease area is 11.49 MT with 4.054 MT mineable reserve as of 31.03.2024. Out of the total mineable reserve, 4.054 MT are available for extraction. Percent of extraction is 80 %.
- (iii) G-III (top) and G-III (bottom) seams with thickness ranging from 10.79 m to 4.22 m are workable. The grade of coal is G5, G7, stripping ratio NA while the gradient is 1 in 12 to 1 in 20.
- (iv) Life of mine is 10 years as of 01.04.2024.
- (v) **Details of Land usage**

i. Pre mining (Area in Ha).

S.No.	LAND USE	Within ML Area (ha)	TOTAL (ha)
1.	Agricultural land	246.169	246.169
2.	Forest land	301.480	301.480
3.	Waste land	-	-

4.	Grazing land	-	-
5.	Surface water bodies	-	-
6.	Settlements	-	-
7.	Others (Total Govt. Land)	314.64	314.64
	TOTAL	862.289	862.289

ii. Post-Mining: (Area in Ha).

S.No.	LAND USE	LAND USE (ha)				
		Plantation	Water body	Public use	Undisturbed	TOTAL
1.	External OB Dump	NA	NA	NA	NA	NA
2.	Internal Dump/ Backfilled Area	NA	NA	NA	NA	NA
3.	Excavation	NA	NA	NA	NA	NA
4.	Built up area including roads	-	-	14.80	-	14.80
5.	Green Belt/Afforested Area	3.0	-	-	-	3.0
6.	Undisturbed Area	-	-	-	844.489	844.489
TOTAL		3.0	-	14.80	844.489	862.289

- (vi) **Details of transportation of Coal:** The coal is proposed to be transported within mining lease by covered belt conveyors and outside by covered trucks to railway siding and small quantity through road. There are no changes proposed in the mode of transportation.

- (vii) **Detailed Status of Progressive Mining Closure Plan:** The Progressive Mining Closure Plan (MCP) was approved on 12.04.2013 and there is no deviation from the approved progressive MCP. Mine closure activities are being undertaken as per the approved progressive mine closure plan. MCP submitted for Capacity of 0.30 MTY and Project area 862.266 Ha.
- (viii) Total Lease area of 862.289 ha already been acquired and under possession. There are 9 no. of villages within the mining lease area. No villages have been shifted.
- (ix) **Reclamation:** The reclamation plan includes Afforestation which shall be done progressively. It shall include a greenbelt of 13.8 Ha, wherein the density of tree plantation (in no of plants) will be 2500 per Ha.

11.1.2.8: Legal Issues/ Violation: PP reported that there is no legal issue/violation wr.t i) Environment (Protection) Act, ii) Air(P&CP) Act, Water (P&CP), Act, Forest Conservation Act, Wildlife Protection Act, CRZ Notification, MMDR Act, Factories Act. Further, there is no court case on the project.

11.1.2.9: Production Details: PP Submitted the details of actual coal production vis-à-vis sanctioned capacity with existing EC since the inception of the mine:

Year	EC sanctioned capacity (MTPA)	Actual Production (MT)	Excess production beyond the EC sanctioned capacity
1996-97	0.24	0.106	-
1997-98	0.24	0.142	-
1998-99	0.24	0.169	-
1999-2000	0.24	0.190	-
2000-01	0.24	0.220	-
2001-02	0.24	0.308	0.068
2002-03	0.24	0.315	0.075
2003-04	0.24	0.277	0.037
2004-05	0.24	0.253	0.013

2005-06	0.24	0.258	0.018
2006-07	0.42	0.212	-
2007-08	0.42	0.263	-
2008-09	0.42	0.303	-
2009-10	0.42	0.335	-
2010-11	0.42	0.325	-
2011-12	0.42	0.328	-
2011-12	0.42	0.302	-
2013-14	0.42	0.300	-
2014-15	0.42	0.325	-
2015-16	0.42	0.339	-
2016-17	0.42	0.364	-
2017-18	0.42	0.378	-
2018-19	0.42	0.383	-
2019-20	0.42	0.376	-
2020-21	0.42	0.237	-
2021-22	0.42	0.177	-
2022-23	0.42	0.129	-
2023-24	0.42	0.122	

11.1.2.10: EMP: PP reported that the total Capital cost of EMP is 347.41 lakhs and the total recurring cost is Rs. 17.48 Lakhs.

11.1.2.11: Plantation: PP reported that Existing green belt has been developed in 13.8 ha area which is about 1.6 % of the total project area of 862.289 Ha with total saplings planted as 34500 nos. PP proposed that 24,250 saplings in 9.7 Ha land will be planted during the balance life of the mine.

11.1.2.12: Certified Compliance Report: PP submitted that CCR obtained vide F.No.3-

31/2006(Env) dated 19.06.2023. PP also provided some of the details sought by RO during inspection, vide letter no. SECL/DSB-SA/SGL/CM/2023/1729 dated 19.09.2023.

11.1.2.13: R&R Plan: PP submitted that no R&R is involved.

11.1.2.14: Project Cost: Existing capital cost of project was Rs. 47.3914 Crores and the capital cost for environmental protection measures is proposed as Rs. 347.41 Lakhs. PP reported that as on 01.04.2024, Singhali UG has 581 employees.

11.1.2.15: Consultant: Central Mine Planning and Design Institute Limited, Ranchi, having Certificate no. NABET/EIA/2124/RA 0258, valid till 22.08.2024.

11.1.2.16: Undertaking: PP submitted undertakings vide letters dated 19.04.2024 and 08.05.2024 to the effect that i) there is no construction/ mining done at the site or the construction was done without any deviation as per the previous EC obtained vide no. J-11015/179/2005-IA. II(M) dated 09.05.2006, ii) There is no litigation on the project at NGT or any other court of law, iii) The land was acquired under CBA Act, 1957. The land is in our possession and no R&R issue is involved. iv) there has been no change or increase in the production capacity and the mining lease area of Singhali U/G mine, after obtaining EC for the production capacity of 042 MTPA in the lease area of 862.289 ha. v) that there has been no change in mining parameters namely mining method, mining plan, mineral transportation, water requirement, and reclamation plan after obtaining EC for the production capacity of 0.42 MTPA, vi) Mineral transportation carried out through road/rail, the average industrial water requirement of 160 cum/day is also the same. vii) that the mine has not discontinued the mining operations for more than 5 years from the date of application of grant of EC for the production capacity of 0.42 MTPA. and viii) regarding the correctness of data and information submitted to EAC and MoEF&CC.

11.1.3: Committee after deliberations noted the following:

The proposal was initially considered in the 44th EAC meeting held on 25.04.2019 wherein the committee deferred the proposal for want of additional information. PP later submitted the information in PARIVESH 2.0 portal as a new proposal and the proposal was considered in the 3rd EAC meeting held on 16th and 17th November 2023 and the proposal was again deferred for want of additional information. Further, the Committee observed that PP did not submit the reply w.r.t. the observations of the earlier EAC (deferred in the 44th EAC meeting dated 25.04.2019) and instead applied a new proposal with compliance on PARIVESH 2.0 vide proposal no. IA/CG/CMIN/449593/2023. Accordingly, the Committee asked PP to submit a detailed reply to their earlier proposal number IA/CG/CMIN/7650/2005 available on PARIVESH-1.0 for further consideration of the proposal instead of a new application. PP submitted the ADS reply vide letter dated

24.02.2024 and after uploading the complete documents on the PARIVESH-1.0 portal the proposal is now placed in the 11th EAC meeting scheduled for 8-9 May 2024.

In reply to the ADS raised during the EAC meeting dated 25.04.2019; PP submitted the following:

S.No.	ADS Point	Reply/Response of PP
1	Public notice shall be issued through the concerned SPCB for information of the stakeholders about the present coal mining operations inviting comments and their redressal.	Public notice regarding the present coal mining operations inviting comments and their redressal in respect of Singhali u/g mine has been published through the Chhattisgarh Environment Conservation Board in the Haribhoomi newspaper, Bilaspur edition (C.G.) on and 30.06.2021.
2	Mining plan and progressive mine closure plan duly approved by the competent authority.	The mining plan/Board approval and the progressive mine closure plan duly approved by the SECL Board. PP also submitted the copies of the same.
3	Compliance status of the conditions stipulated in the environmental clearance from the Regional office of the Ministry,	The Certified Compliance report vis-a-vis the EC conditions compliance status of the mine issued by the IRO, Raipur of the MoEF&CC. The action taken report in respect of the CCR is submitted.
4	Valid consent to operate from the State Pollution control Board for the present mining operations	Consent to operate renewal obtained by the CCEB vide no. 584/TS/CECB/2023 dated 27.04.2023, valid upto 30.04.2024, Copy of the same is submitted.
5	Redressal of issues raised during public hearing conducted by the SPCB,	The issues raised during the public hearing of Singhali u/g mine conducted on 17.11.2004 have been addressed. Action taken report of the public hearing minutes is submitted.

6	Coal production realized from the mine from 1993-94 vis-a-vis capacity stipulated in the environmental clearance.	PP submitted the Coal production from the mine since 1993-94 to 2022-23 vis-a-vis capacity stipulated in the environmental clearance.
7	Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly, for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.	The report on need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. PP submitted the copy of report.
8	Forest clearance for diversion of 17.5 ha of forest land as required under the Forest (Conservation) Act, 1980.	No forest land patch of 17.5 ha is involved in the project. Forest land diversion of 301.48 ha is involved in the project and the Forestry Clearance copy is submitted.
9	Details of court cases and the compliance of the orders, if any.	No court cases have been registered against the project as on date.
10	Compliance of the Ministry's OM dated 30 May, 2018.	The project proponent has submitted the application for revalidation of EC to MOEF&CC, New Delhi in compliance of the Gazette Notification issued by MOEF&CC, New Delhi on dated:06.04.2018. The proposal I was considered in the EAC meeting held on 26.10,2018

The PP and NABET Accredited consultant made detailed presentation and Committee deliberated on the various aspects of the project including compliance of ADS points/

EIA/EMP report / Transportation, plantation etc. and following are the observation of the EAC:

- 1) EC obtained vide letter no. J-11015/179/2005-IA.II(M) dated 09.05.2006 under EIA 1994 over an area of 862.289 Ha and capacity 0.42 MTPA.
- 2) The instant proposal is for grant of re-validation of EC under EIA 2006 (as amended) as per provision of S.O 1530(E) dated 6.04.2018 read with OM dated 16.02.2021.
- 3) PP applied under extension of EC in PARIVESH Portal on 08.09.2018 i.e. well within the window period of 6 months (i.e. before 5.10.2018) and also submitted Form-1 as required under S.O 1530(E) dated 6.04.2018 for the re-validation of EC under EIA 2006 as amended.
- 4) PP also reported that general conditions are not applicable. The project does not fall in the Critically Polluted Area (CPA)/SPA as the area is not listed in the CEPI assessment made by CPCB in 2018.
- 5) The Committee observed that PP reported that the project is not located within 10 km of any ESZ/ESA/National Park/Wildlife Sanctuary/Biosphere reserve/Tiger reserve/Elephant reserve/Tiger Corridor/Elephant Corridor etc. However, PP submitted that there are Schedule-I species and a Wildlife conservation plan has been prepared by TFRI Jabalpur and submitted to the State Forest Department for approval on 01.12.2023 and issuance of a demand note for deposition of the wildlife conservation fund. Provision of Rs 8.21 crore has been proposed in the WLC plan for implementation various activities for conservation of wildlife.
- 6) The Committee observed that PP reported that the project involves a total 301.48 Ha of forest land and Forest Clearance is obtained vide no. 8-91/94 FC dt. 27/28.03.1995 and there is no broken forest land and no violation of the Forest Conservation Act, of 1980.
- 7) It is observed by the Committee that there has been no excess production by the PP after the grant of EC dated 09.05.2006 for the production capacity of 0.42 MTPA. However, after the grant of EC for expansion, the production is well within the EC capacity.
- 8) In pursuant to OM dated 16.02.2021, PP also submitted an undertaking dated 08.05.2024 wherein it has mentioned that there has been no change in mining namely mining method, mining plan, mineral transportation, water requirement, reclamation plan after obtaining EC for production capacity of 0.42 MTPA.
- 9) The Committee observed that the method of mining operations envisages development by the Board & Pillar method with UDM & LHD. The total minable

reserve reported in the mine lease area is 11.49 MT with 4.054 MT mineable reserve as of 31.03.2024. Out of the total mineable reserve, 4.054 MT are available for extraction. Percent of extraction is 80 %. G-III (top) and G-III (bottom) seams with thickness ranging from 10.79 m to 4.22 m are workable. The grade of coal is G5, G7, stripping ratio NA while the gradient is 1 in 12 to 1 in 20. Life of mine is 10 years as of 01.04.2024. The coal is being transported from mine to surface through belt conveyors, from pit head to railway siding through covered trucks and small amount is also being transported through road. PP submitted that there is no change in mode of transportation.

- 10) The Committee observed that mine is in the development stage. Further, in the EC granted it was mentioned that No depillaring operation shall be carried out below the village area. The Committee is of the view that PP shall ensure proper subsidence monitoring even though mine is in the development stage.
- 11) The Committee deliberated on the proposed plantation plan and also asked for reclamation plan for balance life of mine. PP vide letter dated 08.05.2024 submitted that as per green belt development plan submitted in EIA/EMP report total 58,750 nos. (i.e. 23.5 ha) of sapling plantation was proposed in the Singhali UG mine. Till 2023-24 project has planted 34,500 nos. of saplings. Further, remaining 24,250 nos. of sapling plantation has been proposed for the balance life of mine. PP also submitted details of proposed year wise sapling plantation. The Committee is of the view that PP shall expedite the plantation activities over remaining 9.7 Ha area so as to complete the same with in next three years. Further, the Committee asked the PP to increase the same and in case surface rights are not available plantation can be done in other places viz. nearby villages, schools etc. in consultation with the local Authorities.
- 12) The Committee deliberated on Public Hearing. PP submitted that the Public hearing was conducted on 17.11.2004 and the issues raised during the PH were mainly air and water pollution, the requirement for drinking water, employment etc. PP informed that to address the issue of air/water pollution the transportation of coal is through covered trucks/tippers, construction of concrete roads is done, water is treated before discharging outside to provide the same to residential colony and Bhejinara village, dense Plantation has been done in and around the mine area, employment has been provided to eligible persons etc. In addition, PP vide letter dated 08.05.2024 submitted the details of expenditure of Rs. 229 lakhs incurred for compliance of the issues raised in public hearing. PP also submitted that water supply to the nearby villages will be continued till the mine life for which an amount of Rs 3 lakh/annum will be incurred and the rest activity will be covered EMP revenue expenditure head.
- 13) Further, for the revalidation of EC pursuant to OM dated 16.02.2021 and being a legacy case comments of the general public were sought through written

submission. Public Notice for revalidation was given in Hari Bhumi, Raipur and Bilaspur Newspapers on 30.06.2021. PP submitted that no written comments were received. The same was confirmed by RO CECB Korba vide letter dated 13.08.2021. The Committee observed that PP shall follow the procedure prescribed in this regard in the EIA Notification 2006 as amended.

- 14) In addition to this PP also submitted that a report on need assessment survey for the activities proposed under the CSR.
- 15) PP submitted that the source water used is Ground Water and NoC for the same has been obtained from CGWA vide application no. CGWA/NOC/MIN/ORIG/2021/11741 dated 23.04.2021 for the capacity of 10328.00 m³/day which was valid up to 22.04.2023. The Committee asked for the renewal status. PP vide letter dated 08.05.2024 submitted that renewal application for obtaining groundwater NOC is in process and the groundwater abstraction charges have been deposited to the CGWA on 25.04.202, e-mails sent to CGWA on 26.04.2023, 29.07.2023, 12.12.2023, 01.01.2024 and 07.02.2024 for grant of GW NOC renewal. PP further submitted that they have also visited CGWA office, and it is learnt that the application is revived by CGWA on 20.12.2023 and approved by Evaluation officer on 26.12.2023 and is Currently pending with approval officer. The Committee observed that payment has been made and PP is also following up for the same. The Committee also observed that PP did not submit the current water requirement however, as per previous EC water requirement is 160m³/day.
- 16) The Committee deliberated on the CCR dated 19.06.2023 obtained from RO, Raipur and observed that no specific non-compliances were mentioned. However, RO asked the PP to submit certain information viz. details of coal pillars & solid barriers, subsidence movement, NOC from CGWA, generation of sewage & the progress of construction of STP, details of generation of oil & grease and establishment of environmental laboratory. PP vide letter dated 19.09.2023 provided the information regarding details of coal pillars & solid barriers, subsidence movement and construction of STP. During the meeting PP submitted that Oil and grease generated in the project are collected and auctioned to the authorized recyclers. No effluent is generated from the workshop and environment monitoring is done by CMPDI NETEL India Ltd. through their NABL accredited labs. PP further submitted that no subsidence movement has been observed on surface over and around the working area till date. The Committee observed that mine is presently under development stage but PP shall monitor the subsidence movement, PP shall also explore the possibility of installation of STP and ETP and submit the timelines for the same. The PP vide letter dated 08.05.2024 submitted that the proposal for construction of 600 KLD STP at Dhelwadih colony is under process which will be completed within 18 months. ETP alongwith with oil & grease trap of 4 KLD capacity will also be installed within 18 months.

- 17) The Committee asked the PP to get the forest clearance for diversion of 17.5 Ha of forest land as required under the Forest Conservation Act, 1980. The PP submitted that no forest land patch of 17.5 Ha is involved in the project and forest land diversion of 301.48 Ha is involved in the project, forest clearance for which is already obtained.
- 18) PP reported that the total Capital cost of EMP is 347.41 lakhs and the total recurring cost is Rs. 17.48 Lakhs. PP vide letter dated 08.05.2024 submitted that as per EMP total capital cost provisioned is Rs 347.41 lakhs which has been utilized. In addition of the above during FY2021-22, 2022-23 and 2023-24 PP spent Rs 71.25 Lakh, Rs 84.25 Lakh and Rs 98.39 Lakh respectively for expenditure incurred on Env't. Monitoring, Dust suppression, Plantation monitoring, Environment Audit, etc.
- 19) The Committee observed that the CTO for the mine has expired on 30.04.2024.
- 20) PP reported that there is no legal issue/violation wr.t i) Environment (Protection) Act, ii) Air(P&CP) Act, Water (P&CP), Act, Forest Conservation Act, Wildlife Protection Act, CRZ Notification, MMDR Act, Factories Act. Further, there is no court case on the project
- 21) The Committee deliberated on the requirement of the Environmental Cell and Organization Chart. The PP vide letter dated 08.05.2024 submitted that separate environment cell with personnel qualified in environment discipline has been set up at the company headquarters, area Level and unit levels. The responsibility for implementing environmental management plan rest with the environment management structure which is properly assisted by a team of qualified and trained personnel.

*Based on the discussions held, and document submitted the Committee **deferred** the proposal for submission of following information:*

- i) Compliance of ADS point no 1 for issuance of Public Notice as per provision of EIA Notification 2006 (as amended) read with OM dated 16.02.2021.*
- ii) PP shall prepare the mine closure plan for the capacity and area for which re-validation of EC is required.*

Agenda No. 11.2

Proposal for grant of re-validation of Environment Clearance to Umaria Underground Mine for production capacity 0.35 MTPA from an ML area of 512,54 Ha, located in Bhagra, Bilarikop, Chhatan Camp, Khalesar, Lalpur, Umaria Khas, Umaria Tanaja Villages, Bandhavgarh Tehsil, Umaria District, Madhya Pradesh by

South Eastern Coal Field Ltd. –Revalidation of EC as per S.O. No. 1530(E) dated 06/04/2018 - Regarding

[Proposal No. IA/MP/CMIN/77829/2005; File No. J-11015/90/2005-IA.II(M); Consultant: CMPDIL; NABET Certificate No. NABET/EIA/2124/RA 0258; Valid till 22.08.2024]

11.2.1: Umaria Underground Mine has made an online application vide proposal no. IA/MP/CMIN/77829/2005 Dated 05.09.2018 seeking revalidation of Environment Clearance (EC) under the provisions of the Notification S.O. 1530(E) dated 06.04.2018 under the EIA Notification, 2006 for the project. The proposed project activity is listed at Schedule no 1(a) Mining of minerals Under Category “A” of the schedule of the EIA Notification, 2006 and appraised at the Central Level.

The present proposal of Umaria Underground Mine located at Bhagra, Bilarikop, Chhatan Camp, Khalesar, Lalpur, Umaria Khas, Umaria Tanaja Villages, Bandhavgarh Tehsil, Umaria District, Madhya Pradesh is for obtaining re-validation of EC under EIA Notification, 2006, in compliance of the Gazette Notification S.O. No. 1530(E) dated 06/04/2018, for existing project which has already obtained EC vide letter no J-11015/90/2005-IA-II(M) dated 20.05.2005 under EIA Notification, 1994 for the production capacity of 0.35 MTPA in the leasehold area of 857.675 Ha.

Earlier, the project was considered in the 44th EAC meeting held on 24th and 25th April 2019 wherein the committee deferred the proposal for want of additional information. PP vide letter dated 15.04.2024 has submitted the additional information on the PARIVESH Portal. Accordingly, the proposal is placed in the current EAC meeting.

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

11.2.2.1: Location:

- i) The project area is covered under Survey of India Topo-sheet No. 64A/14 and is bounded by geographical coordinates ranging from 23⁰30'N to 23⁰33'N and longitudes 80⁰47'E to 80⁰53'E.
- ii) The project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC vide its OM dated 13th January 2010 has imposed a moratorium on the grant of Environment Clearance.

11.2.2.2: Forest Area: PP Submitted that the project does not involve any forest area.

11.2.2.3: Protected Area: PP Submitted that the project is not located within 10 km of any ESZ / ESA / National Park/ Wildlife Sanctuary / Biosphere reserve / Tiger reserve/ Elephant reserve/Tiger Corridor/ Elephant Corridor etc. PP further submitted that the project does not include any wildlife issues and Schedule-I species.

11.2.2.4: Mining Lease & Mine Plan: PP Submitted that the mining plan/Project Report for the project was approved for (capacity-0.30 MTPA, Area-857.675 Ha) vide letter dated 03.09.1996 (0.30 MTPA)/28.03.2005 (0.35 MTPA) & progressive mine closure plan approved vide letter dated 27.01.2014. PP submitted that the mining Lease is valid up to 26.11.2035.

11.2.2.5: Method of Mining: PP submitted the following:

- (i) Method of Mining to be adopted shall be Underground with a Board and Pillar system. The Capacity of the mine applied for Normative capacity/ peak capacity as per the approved mining plan is 0.35 MTPA.
- (ii) Excavation of Coal is through SDL.
- (iii) Total geological reserve reported in the mine lease area is 12.89MT with 9.73MT mineable reserves as of 01.04.2024. Out of the total mineable reserve of 7.29MT are available for extraction. The percentage of extraction is 75%.
- (iv) Seams I, II & IV with thickness ranging from 0.61-2.71, 0.90-3.51 & 0.40-2.08 respectively are workable. Grades of coal are E, C/ D & B/ C respectively, while the gradient is – Seam I: 1 in 16, Seam II: 1 in 24, Seam IV: 1 in 12
- (v) Life of mine is 28 years as of 01.04.2024.
- (vi) **Details of Land usage**

Pre mining (Area in Ha)

Sl.No.	LAND USE	Within ML Area (ha)	TOTAL (ha)
1.	Agricultural land	440.535	440.535
2.	Forest land	-	-
3.	Waste land	-	-
4.	Grazing land	-	-

5.	Surface water bodies	5.0	5.0
6.	Settlements	-	-
7.	Others (Total Govt. Land)	67.005	67.005
	TOTAL	512.54	512.54

Post-Mining: (Area in Ha).

S.No.	Type	Total Area	Reclaimed Area	Un-reclaimed area
1.	Excavation/Quarry Area:	NA	NA	NA
	(a) Backfilled areas	NA	NA	NA
	(b) Excavated Void	NA	NA	NA
2.	External Dump	NA	NA	NA
3.	Safety Zone	NA	NA	NA
4.	Road and Infrastructure	18.899	NA	18.899
5.	Garland Drains	NA	NA	NA
6.	Embankment	NA	NA	NA
7.	Others- Undisturbed area	493.641	NA	493.641
	Total	512.540	NA	512.540

Note: 512.54 ha land includes surface water bodies in 5.0 ha and 18.899 ha land for infrastructure, service building, explosive magazines, colony area, approach roads etc.

(vii) **Details of transportation of Coal:** The coal is proposed to be transported within and outside the mining lease in the following manner:

- (i) In pit: Through conveyor belt to surface bunker.
- (ii) Surface to siding: By Trucks/tippers.
- (iii) Siding to consumer: By railway through wagons and to local consumers by Trucks

(viii) **Detailed Status of Progressive Mining Closure Plan:** The progressive mine closure plan approved on 27.01.2014. There is no deviation from the approved PMCP.

- (ix) There are 7 no. of villages within the mining lease area. Out of which NIL nos. of villages has already been shifted and no villages are planned to be shifted by as it is an underground mine.
- (x) Out of the total lease area of 857.675Ha, 857.675Ha has already been acquired but the right is only for underground mining.
- (xi) **Reclamation:** Plantation developed in 13.8 ha area. Density of tree plantation (in no of plants): 2500 nos. per ha.

11.2.2.6: Legal Issues/ Violation: PP reported that there is no legal issue/violation wr.t

i) Environment (Protection) Act, ii) Air(P&CP) Act, Water (P&CP), Act, Forest Conservation Act, Wildlife Protection Act, CRZ Notification, MMDR Act, Factories Act. Further, there is no court case on the project.

11.2.2.7: Production Details: PP Submitted the details of actual coal production vis-à-vis sanctioned capacity with existing EC since the inception of the mine:

Year	Consented/ EC sanctioned capacity (MTPA)	Actual production (MTPA)	Excess production beyond the EC sanctioned capacity
1974-75	Consented capacity- 0.144	0.002970	Nil
1975-76	0.144	0.067726	Nil
1976-77	0.144	0.092772	Nil
1977-78	0.144	0.091633	Nil
1978-79	0.144	0.089923	Nil
1979-80	0.144	0.095327	Nil
1980-81	0.144	0.101672	Nil
1981-82	0.144	0.092700	Nil
1982-83	0.144	0.082378	Nil
1983-84	0.144	0.081396	Nil
1984-85	0.144	0.091524	Nil
1985-86	0.144	0.107925	Nil
1986-87	0.144	0.128560	Nil
1987-88	0.144	0.137153	Nil
1988-89	0.144	0.150000	0.00600
1989-90	0.144	0.153220	0.00922
1990-91	0.144	0.150361	0.00636
1991-92	0.144	0.154300	0.01030
1992-93	0.144	0.155300	0.01130
1993-94	0.144	0.145000	0.00100
1994-95	0.144	0.142900	Nil
1995-96	0.144	0.208234	0.06423
1996-97	0.144	0.201400	0.05740

1997-98	0.144	0.177200	0.03320
1998-99	0.144	0.150060	0.00606
1999-2000	0.144	0.127470	Nil
2000-01	0.144	0.128600	Nil
2001-02	0.144	0.146750	0.00275
2002-03	0.144	0.155500	0.01150
2003-04	0.144	0.157200	0.01320
2004-05	0.144	0.157500	0.01350
2005-06	EC granted for- 0.35 MTY	0.178100	Nil
2006-07	0.35	0.147100	Nil
2007-08	0.35	0.171000	Nil
2008-09	0.35	0.128045	Nil
2009-10	0.35	0.136400	Nil
2010-11	0.35	0.118625	Nil
2011-12	0.35	0.148280	Nil
2012-13	0.35	0.158300	Nil
2013-14	0.35	0.180800	Nil
2014-15	0.35	0.210200	Nil
2015-16	0.35	0.263000	Nil
2016-17	0.35	0.175800	Nil
2017-18	0.35	0.189700	Nil
2018-19	0.35	0.117750	Nil
2019-20	0.35	0.152001	Nil
2020-21	0.35	0.097500	Nil
2021-22	0.35	0.107005	Nil
2022-23	0.35	0.127300	Nil
2023-24	0.35	0.117360	Nil

11.2.2.8: Water Requirement: PP submitted that the water requirement is 775 KLD (Domestic 420 KLD; Industrial 335 KLD) and NoC from CGWA has already been obtained for 3454 m³/day vide no. CGWA/NOC/MIN/ORIG/2022/16510 dated 28.09.2022.

The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

Sl No	Type of Waste	Source	Quantity (TPA)	Mode of Treatment	Disposal
1.	Used oil. (Cat. 5.1)	UG mining and ancillary machinery	0.180M.t	Collected and stored in steel barrels and kept in covered shed with pucca platform.	Through e-auction
2.	Wastes containing	UG mining and	0.108M.t	Collected and stored in steel	Agreement made for disposal

	residues of oil (Cat. 5.2)	ancillary machinery		barrels and kept in covered shed with pucca platform.	though MPPCB approved common disposal facility.
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11.2.2.9: Public Consultation: PP submitted that Public Consultation (including public hearing) was conducted on 16.10.2003 at the Conference Hall Collectorate, Distt. Umaria (MP). The presiding officer of the same was Collector, Umaria. The major issue raised in the public hearing was that there is a practice of providing free coal to employees for domestic use. Such practice causes pollution and health hazards among the population and imbalance in nature. Coal transport by road should be restricted and providing coal to the employees should be stopped. PP submitted that an advertisement for the same was published in Dainik Bhaskar on 15.09.2003 and Dainik Bharti on 14.09.2003. PP further submitted that a Public Notice for revalidation was also given in Raj Express and Times of India on 30.12.2023. PP submitted that no representation was received in writing from the district and outside of the district. The same was confirmed by RO MPPCB Shahdol vide letter dated 23.02.2024.

11.2.2.10: Capital Cost of the proposed project: PP Submitted that the Existing capital cost of the project was Rs. 1394.68 Lakhs as per PR approved on 03.09.1996. The employment generation from the proposed project/expansion is 469.

11.2.2.11: Plantation: PP reported that the existing green belt/plantation in the mine premises has been done in approx. 8.0 ha area which is about 1.56% of the total project area of 512.54 ha with a total sapling of 16118 Trees.

11.2.2.12: Certified Compliance Report: PP submitted that the CCR of the site inspection dated 29.4.2023 obtained from Regional Office, Bhopal.

11.2.2.13: R&R Plan: No R&R is involved

11.2.2.14: Consultant: The Project Proponent engaged CMPDIL for preparation of EIA/EMP Report and for making presentation before EAC.

11.2.2.15: Undertaking: PP submitted undertakings vide letters dated 19.04.2024 and 15.05.2024 to the effect that i) there is no construction/ mining done at the site or the construction done without any deviation as per previous EC obtained vide no. J-11015/90/2005-IA-II(M) dated 20.03.2005, ii) That there is no litigation on the project at NGT or any other court of law, iii) Mineral transportation carried out through road/rail, the average industrial water requirement is 335 cum/day iv) that there has been no increase in the production capacity and the mining lease area of the said project, after obtaining

EC for the production capacity of 0.35 MTPA, v) that there has been no change in mining namely mining method, mining plan, mineral transportation, water requirement, reclamation plan after obtaining EC for production capacity of 0.35 MTPA, vi) that the mining operations may be restricted within 512.540 Ha of land and vii) that the mine has not discontinued the mining operations for a period of more than 5 years from the date of application of grant of EC after obtaining EC for production capacity of 0.35 MTPA. and viii) regarding the correctness of data and information submitted to EAC and MoEF&CC.

11.2.3: Committee after deliberations noted the following:

The proposal was initially considered in the 44th EAC meeting held on 24th and 25th April 2019 wherein the committee deferred the proposal for want of additional information. PP submitted the reply vide letter dated 15.04.2024 and uploaded the same on the PARIVESH portal. Accordingly, the proposal is placed in the current EAC meeting.

In reply to the ADS raised during the EAC meeting dated 24-25 April 2019; PP submitted the following:

S. No	ADS Point	Reply/Response of PP
1	Public notice shall be issued through concerned SPCB for information of the stakeholders about the present coal mining operations inviting comments and their redressal.	Public notice regarding the present coal mining operations inviting comments has been published through the Madhya Pradesh Pollution Control Board in the Rajexpress & Times of India on 30.12.2023 and no comments received.
2	Mining plan and Progressive Mine Closure Plan duly approved by the competent authority.	The capacity enhancement from 0.30 to 0.35MTPA was approved by Board of SECL on 28.03.2005. Progressive Mine Closure Plan was approved on 27.01.2014.
3	Compliance status of the conditions stipulated in the environmental clearance from the concerned Regional Office of the Ministry	MOEF&CC IRO, Bhopal Visited the mine on 29.04.2023 and Certified Compliance Report was submitted vide no. F.No. 3-31/2005(Env); I/64361/2024 Dt 24.02.2024. As per the CCR, total 03 specific and 04 general condition are partially complied. PP submitted the ATR and review of the same is yet to be done by the R.O Bhopal.

4	Valid Consent to operate from the SPCB or the present mining operations.	CTO from SPCB is valid up to 30.04.2025.
5	Redressal of issues raised during the public hearing conducted by the SPCB.	As per Table below
6	Coal production realized from the mine from 1993-94 vis-à-vis capacity stipulated in the environment clearance	the total coal production from 1993-94 to 2023-24 is 4.82 MT. It is observed that there has been excess production before the grant of EC of on 20.05.2005. After that, the production has been within the EC capacity.
7	Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.	<p>The need base assessment was done by officials of Umaria UG Mine of SECL, Johilla Area in the Kirantal Kalan, Pipariya, Kirantal Khurd and Ladera villages through community gatherings & meetings to identify and assess the social and physical infrastructural requirements in the villages.</p> <p>The requirements of ATM RO water plant, Solar street light, Deepening and Cleaning of pond, Primary health centre in Village, Approach Road, CC Road, Community hall construction, Water Supply of mine out water for irrigation, Provision of drinking water facility etc. was identified in the nearby villages.</p> <p>The implementation of the above works will be done by state govt. under the CSR head of SECL. The tentative budget provision of Rs. 190.00 Lakhs is kept for the works.</p>

8	Forest clearance for diversion of 17.50 Ha of forest land as required under the Forest (Conservation) Act 1980.	No forest land is involved in the project. Hence, not applicable for this project
9	Details of court cases and the compliance of the orders, if any.	No court cases/ compliance of the orders are pending in this project.
10	Compliance of the Ministry's OM dated 30 th May, 2018	The project proponent has submitted the application for revalidation of EC to MOEF&CC, New Delhi in compliance of the Gazette Notification issued by MOEF&CC, New Delhi on dated 06.04.2018. The proposal was considered in the EAC meeting held on 25.04.2019

The PP and NABET Accredited consultant made a detailed presentation and the Committee deliberated on the various aspects of the project including compliance with ToR conditions/ EIA/EMP report / Baseline data/ Transportation route/plantation etc. and the following are the observations of the EAC:

- 1) EC obtained vide no. J-11015/90/2005-IA-II(M) dated 20.03.2005 under EIA 1994 over an area of 857.675 Ha (comprising 512.54 Ha of total lease area) and capacity 0.35 MTPA.
- 2) The instant proposal is for the grant of re-validation of EC under EIA 2006 (as amended) as per provision of S.O 1530(E) dated 6.04.2018 read with OM dated 16.02.2021.
- 3) PP applied under extension of EC in PARIVESH Portal on 04.09.2018 i.e. well within the window period of 6 months (i.e. before 5.10.2018) and also submitted Form-1 as required under S.O 1530(E) dated 6.04.2018 for the re-validation of EC under EIA 2006 (as amended).
- 4) PP also reported that general conditions are not applicable. The project does not fall in the Critically Polluted Area (CPA)/ Severally Polluted Area SPA as the area is not listed in the CEPI assessment by CPCB in 2018.
- 5) The project involves no forest land. The project does not fall within 10 KM of any Protected Area. The Committee observed that PP reported that the project does not involve approval/clearances under FC, Act 1980, WLP, Act 1972 and CRZ Notification 1991.

- 6) PP Submitted that the project is not located within 10 km of any ESZ / ESA / National Park/ Wildlife Sanctuary / Biosphere reserve / Tiger reserve/ Elephant reserve/ Tiger Corridor/ Elephant Corridor etc. PP further submitted that the project does not include any wildlife issues and Schedule-I species.
- 7) The Committee observed that as reported by PP the Public Consultation (including public hearing) was conducted on 16.10.2003 at the Conference Hall Collectorate, Distt. Umaria (MP). The presiding officer of the same was Collector, Umaria. PP submitted that an advertisement for the same was published in Dainik Bhaskar on 15.09.2003 and Dainik Bharti on 14.09.2003. The major issues raised in the public hearing were i) purification of mine water, providing the water for use by local people of villages Jamunia, Chapaha, ii) electricity arrangement in the area should be done by the project. Specifically coal transportation road from Chapaha colliery to Sonu Dhaba should be illuminated for prevention against accident, and iii) plantation and illegal cutting of trees. With respect to compliance PP submitted that i) Mine water is treated in settling tank before being discharged outside the mine premises for use of public/ farmers for agriculture and allied purposes. Drinking water for 9 no. colony, Chapaha colony etc. is supplied after purification in the filter plant having capacity of 3000 LPD. Drinking water arrangement has been done for Jamunia and Chapaha village after treatment at filter plant of Umaria Nagar Palika, ii) Electricity arrangement has been made as per requirement for entire colliery roadway and proper illumination exists along the coal transportation roads including road from Umaria (Chapaha) colliery to Sonu Dhaba has been done, and iii) Plantation of 16118 has been done in the mine premises. The security personals deputed in the mine premises to prevent the illegal cutting of trees. No illegal cuttings of trees have been reported. The Committee observed that in accordance with S.O 1530(E) dated 6.04.2018, OM dated 16.02.2021 and as desired by EAC in last EAC meeting, a Public Notice for revalidation of EC was also given in Raj Express and Times of India on 30.12.2023. PP submitted that no representation was received in writing from the district and outside of the district. The same was confirmed by RO MPPCB Shahdol vide letter dated 23.02.2024.
- 8) In pursuant to OM dated 16.02.2021, PP also submitted an undertaking dated 15.05.2024 wherein it has mentioned that there has been no change in mining namely mining method, mining plan, mineral transportation, water requirement, reclamation plan after obtaining EC for production capacity of 0.35 MTPA.
- 9) PP submitted that the source water used is Ground Water and NoC for the same has been obtained from CGWA vide NOC no. CGWA/NOC/MIN/ORIG/2022/16510 dated 28/09/2022 for the capacity of 3454 m³/day which is valid up to 27/09/2024. The water requirement submitted by the PP is 755 KLD, out of which the Domestic water requirement is stated as 420 KLD and the Industrial water requirement is

stated as 355 KLD. The Committee observed that there is no change in water requirements.

- 10) The Committee observed that the area for which EC was granted during 2005 was 857.675 Ha. PP now submitted that the Lease for 867.14 Ha was executed on 18.03.1980 under MMRD Act, 1957. In the EMP prepared in March'2003, total land requirement mentioned 866.476 Ha, having 567.701 Ha for mining. PP further submitted that during the coal extraction, two faults namely F-4 and F-6 were encountered in the east side of the property and winning of coal was not possible beyond these faults. Hence, mining area was restricted to 512.540 Ha. Further, mining will be done in 512.540 Ha only. PP has also submitted the undertaking regarding the same vide letter dated 15.05.2024. The Committee observed that the proposed mining is in the area 512.540 Ha which is less than the area for which previous EC was granted.
- 11) The Committee observed that the method of mining operations envisages development by Underground mining with Board & Pillar method with SDL
- 12) Total geological reserve reported in the mine lease area was 12.89 MT with 9.73 MT mineable reserve as on 01.04.2024. Extractable reserve as of 01.04.2024 is 7.29 MT, percentage of extraction is 75%.
- 13) Seams I, II & IV with thickness ranging from 0.61-2.71, 0.90-3.51 & 0.40-2.08 respectively are workable. Grades of coal are E, C/ D & B/ C respectively, while the gradient is – Seam I: 1 in 16, Seam II: 1 in 24, Seam IV: 1 in 12
- 14) The Committee asked about the life of the mine. PP reported that the expected remaining life of the mine is 28 years as of 01.04.2024.
- 15) The Committee deliberated on the transportation of Coal. PP submitted that the coal is proposed to be transported from pit to surface bunker through the conveyor belt conveyor and from surface to sidings through trucks and tippers, from sidings to consumer, through railways and to local consumers by trucks. PP further submitted that there are no changes proposed in the means of transportation of Coal. The Committee is of the view that PP shall all mitigative measures including covered transportation, water spraying etc. while transporting the mineral.
- 16) The Committee deliberated on the plantation/ green belt area of the project. PP reported that the existing green belt/plantation in the mine premises has been done in approx. 8.0 ha area which is about 1.56% of the total project area of 512.54 ha with a total sapling of 16118 Trees. The Committee is of the view that in other mines of same PP, PP has proposed to install a Solar Power Plant but in the instant case no such proposal is submitted. Accordingly, PP shall submit a revised plantation plan along with budgetary provisions. In case surface rights are not available

plantation can be done in other places viz. nearby villages, schools etc. in consultation with the local Authorities.

- 17) The Committee deliberated on the Certified Compliance Report issued by the RO w.r.t site inspection done on 29.04.2023. The Committee observed that as per the report, PP has complied with most of the conditions and there are some partially complied conditions for which PP has submitted an ATR also. The observation of RO mainly related to waste water treatment, installation of STP & ETP, construction of network of garland drain, plantation and display of the same, monitoring result of fugitive dust emission, and public advertisement. The PP in this regard submitted that:
- i) As suggested, proper garland drain network and separate storm water network around the said area will be established by June-2024 in the mine premises and the wastewater from these networks will be treated in the settling tank/pond. Coal stock yards and approach road to the mines will also be concretized as advised by June-2024
 - ii) Installation of display boards of plantation (with details of no. of plants planted, area covered, year of plantation etc.) has been done in the mine premises
 - iii) Construction of STP is under progress in the Jawahar colony of Umaria and is expected to be completed by June-2024. Proper garland drain network and separate storm water network around the said area will be established June-2024 in the mine premises and the wastewater from these networks will be treated in the settling tank/pond.
 - iv) Request has been made to CMPDIL for conducting Fugitive dust emission monitoring at the dust generating sources and reports of the same will be submitted to the ministry by June 2024.
 - v) The ETP is established in the central workshop of Johilla Area at Nowrozabad for proper treatment of effluent generated in the workshop. As such, oil and grease trap is not required because small quantity of oil and grease generated/used in the process is restricted within the workshop area.
 - vi) Mine is currently operational and henceforth year wise expenditures will be regularly reported to IRO, MoEF&CC, Bhopal through six-monthly compliance reports.
 - vii) Requisite document/ paper cuttings of paper publication about issue of environmental clearance done on 24.06.2005 are attached herewith.

The Committee is of the view that although it is underground mine having very less

production capacity but still PP needs to provide the STP and ETP as required in EC. PP shall construct the network of garland drain and water shall only be discharged after proposer treatment. There are some issues such as display board for plantation, submission of expenditure details and publishing of the advertisement. This shows the need for PP to strengthen its Environment Management Cell at unit level by providing sufficient staff for implementing of EC conditions. The Committee is of the view that PP shall expedite the installation of STP/ETP and construction of garland drain network and provide the latest status of compliance of partially complied conditions to concerned RO.

- 18) The Committee deliberated on the EIA/ EMP and asked the PP to submit the expenditure incurred on Environmental Protection measures. PP vide letter dated 15.05.2024 submitted that the total capital expenditure incurred was Rs. 347.76 Lakhs and in future it is proposed to spend Rs. 108 Lakhs. PP further submitted that the recurring expenditure was Rs. 98.34 Lakh, Rs. 358.9 Lakh, Rs. 245.16 Lakh, and Rs. 152.71 Lakh for FY 2020-21, 2021-22, 2022-23 & 2023-24 respectively. The recurring cost for FY 2024-25 onwards will be 163.31 Lakhs.
- 19) PP reported that the total manpower employed is 469 as on April 1, 2024. The committee observed that employment is same as that of the year 2018.
- 20) The Committee observed that PP reported that there is no legal issue/violation w.r.t i) Environment (Protection) Act, ii) Air(P&CP) Act, Water (P&CP), Act, Forest Conservation Act, Wildlife Protection Act, CRZ Notification, MMDR Act, Factories Act. Further, there is no court case on the project. The PP further submitted an undertaking in this regard.

*Based on the discussion held and the documents submitted by the PP, the EAC **deferred** the proposal for want of following information:*

1. *PP shall submit a revised plantation plan along with budgetary provisions. In case surface rights are not available plantation can be done in other places viz. nearby villages, schools etc. in consultation with the local Authorities.*
2. *PP shall submit the signed copy of CCR with its latest compliance status with photographs.*

Agenda No. 11.3

Proposal for Amendment in Environment Clearance (EC) granted for Amelia Opencast Coal Mine project with production capacity of 5.6 MTPA in ML area of 1180.2 ha of Tehri Hydel Development Corporation India Limited (THDC India

Limited) located in village Pidarwah, Tehsil Singrauli, District Singrauli (Madhya Pradesh) – For Amendment in Environmental Clearance

[Proposal No. IA/MP/CMIN/438322/2023; File No. J11015/310/2006-IA.II(M)]

[Consultant: Srushti Seva Pvt. Ltd.; NABET/EIA/2124/RA0254 valid till 05.12.2024]

11.3.1 The proposal is for amendment in Environment Clearance granted vide Ministry's letter no. 11015/310/2006-IA. II(M) dated 03.08.2021 for Amelia Opencast Coal Mine Project with production capacity of 5.6 MTPA in ML Area of 1180.2 Ha, located at village Pidarwah, Tehsil Singrauli, District Singrauli (Madhya Pradesh), by Tehri Hydel Development Corporation India Limited (THDC India Limited). The PP applied in Form-4 for amendment in EC and the proposal was considered in 50th EAC meeting held on 27.09.2023 wherein the Committee **deferred** the proposal for want of additional information. The PP submitted the requisite information on 02.04.2024 and the proposal is now placed in 11th EAC meeting scheduled for 8-9 May 2024.

11.3.2 The EAC during the deliberation held in 50th meeting observed the following:

Earlier, the Environment clearance for the project was granted under EIA Notification, 2006 vide Ministry's letter no. J-11015/310/2006-IA.II(M) dated 27.03.2008 for a capacity of 8.4 MTPA in a mine lease area of 1619.10 Ha to Madhya Pradesh State Mining Corporation Limited. After reallocation of this Coal block to THDC India Limited, the EC was transferred in the name of THDC India Limited and also amendment in EC was granted for reduction in production capacity to 5.6 MTPA, reduction in lease area to 1180.2 Ha and change in method of mining to only opencast. The transfer of EC with amendment under EIA Notification, 2006 was granted vide Ministry's letter no. J-11015/310/2006-IA. II(M) dated 03.08.2021.

Now, PP has made an application on 11.09.2023 to amend the specific condition no. (xi) of the EC Transfer letter dated 03.08.2021 which states that:

“As committed, no channelization/ diversion will be undertaken and regular water quality monitoring will be done to ensure the quality of water.”

PP submitted the justification for the diverting order of Kanchanmuda Nala by submitting the hydrological study for the Kanchanmuda Nala watershed carried out by using the CWC mathematical model for flood estimation in sub-zone 1(d) for the 50-year return period of 20 cm in 24 hrs rainfall.

This proposal for amendment was considered in the 50th EAC Meeting of Coal Mining, held on 27.09.2023 wherein the Committee deferred the proposal for want of additional information. The information submitted by PP is as follows:

Sr. No.	Observation	Compliance																									
(i)	PP shall submit the proper justification for the amendment of EC considering the coal reserves available (in million tonne) near or below the streams with technology intervention.	<ul style="list-style-type: none"> Considering the case that nala is not diverted and a barrier of 50-60 meter is left as per EC condition for plantation of Sal trees along both sides of stream, the mine will be bifurcated into 2 opencast quarries (Eastern and Western quarries) instead of single quarry operation as per Approved Mining Plan. Extractable reserves in the scenarios (with nala diversion & without nala diversion) are as follows: <table border="1" data-bbox="711 720 1404 1150"> <thead> <tr> <th colspan="2" data-bbox="711 720 1044 800">Scenario 1 (With Nala diversion)</th> <th colspan="3" data-bbox="1044 720 1404 800">Scenario 2 (Without Nala diversion)</th> </tr> <tr> <th data-bbox="711 800 907 915">Combined quarry as per AMP</th> <th data-bbox="907 800 1044 915"></th> <th data-bbox="1044 800 1157 915">Eastern Quarry</th> <th data-bbox="1157 800 1284 915">Western Quarry</th> <th data-bbox="1284 800 1404 915">Total</th> </tr> </thead> <tbody> <tr> <td data-bbox="711 915 907 972">Coal (Mtes)</td> <td data-bbox="907 915 1044 972">139.48</td> <td data-bbox="1044 915 1157 972">29.19</td> <td data-bbox="1157 915 1284 972">71.76</td> <td data-bbox="1284 915 1404 972">100.95</td> </tr> <tr> <td data-bbox="711 972 907 1029">OB (Mcum)</td> <td data-bbox="907 972 1044 1029">511.55</td> <td data-bbox="1044 972 1157 1029">92.59</td> <td data-bbox="1157 972 1284 1029">342.39</td> <td data-bbox="1284 972 1404 1029">434.98</td> </tr> <tr> <td data-bbox="711 1029 907 1150">Stripping Ratio (Cum/Te)</td> <td data-bbox="907 1029 1044 1150">3.67</td> <td data-bbox="1044 1029 1157 1150">3.17</td> <td data-bbox="1157 1029 1284 1150">4.77</td> <td data-bbox="1284 1029 1404 1150">4.31</td> </tr> </tbody> </table> <ul style="list-style-type: none"> It may be observed from above that there will be blockade/loss of 38.53 Mtes of coal beneath the nala barrier which amounts to 7 years of coal requirement for Khurja 2X660MW captive power plant). PP also submitted the copy of Final Stage Quarry Plan without nala Diversion and Final Stage Quarry Plan with nala Diversion. 	Scenario 1 (With Nala diversion)		Scenario 2 (Without Nala diversion)			Combined quarry as per AMP		Eastern Quarry	Western Quarry	Total	Coal (Mtes)	139.48	29.19	71.76	100.95	OB (Mcum)	511.55	92.59	342.39	434.98	Stripping Ratio (Cum/Te)	3.67	3.17	4.77	4.31
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OB (Mcum)	511.55	92.59	342.39	434.98																							
Stripping Ratio (Cum/Te)	3.67	3.17	4.77	4.31																							
(ii)	PP should explore alternate technology/ methods for exploration of such coal reserves to extract coal without diverting the stream.	<p>Possible method of working to extract 38.53 MTes of coal blocked beneath barrier against nala was explored with following observations:</p> <ul style="list-style-type: none"> The average depth of lowermost seam VII (Considered for opencast mining) beneath the barrier is about 60 meter. Considering the surface barrier against nala and angle of draw for underground mining the coal reserves blocked for 																									

		<p>Opencast mining will largely remain blocked for underground mining also.</p> <ul style="list-style-type: none"> • As the underground working will be between opencast high wall slopes at both ends mine safety may be compromised. • One possible method of working blocked coal reserves is using Highwall Mining method but for limited span (about 200m) with opencast high wall slopes at both ends will be a sub-optimal working with low extraction (~15-20%) rate. • More than 30 Mtes of coal reserves will remain blocked even after extraction of coal through underground/High wall mining methods.
(iii)	Biodiversity study of Kanchanmuda Stream/Nallah (source to destination) considering all dependent flora and fauna	Biodiversity study of Kanchanmuda Stream has been carried out through Biodiversity Expert Dr. Manas Badge. PP submitted a report prepared by Dr. Badge.
(iv)	Proper Catchment area study including carrying capacity of river and stream passing be done with hydrological and watershed data.	<ul style="list-style-type: none"> • Catchment area study including carrying capacity of river and stream passing has been carried out considering hydrological and watershed data. • The Catchment Area Study concluded that the estimated bifurcation ratio of 4:16 indicates that the geological structure has not affected the drainage pattern of Kanchanmuda watershed. The drainage pattern developed may be due to elevation difference and more erosional activity. The proposed Amelia diversion is based on elevation difference. For erosional activity the adequate lining of channel will be undertaken. • Carrying Capacity of a river basin refers to the maximum amount of water available naturally as stream flow, ground water, soil moisture etc., to meet ecological and social (domestic, irrigation and livestock) demand in a river basin. • Considering above factors, the carrying capacity of Kanchanmuda watershed has

		<p>been estimated to the tune of 12.091 MCM/year which is discharged into Kanchan River.</p> <ul style="list-style-type: none"> • There will not be any impact on carrying capacity of Kanchanmuda watershed due to proposed diversion of eastern and western streams with appropriate capacity diversion channel. The design and dimension of proposed diversion channel is duly approved by Water Resource Department, Madhya Pradesh. • PP also submitted the copy of catchment area study and carrying capacity study.
(v)	<p>Environment Impact Study for Nallah in the situation of diversion of catchment area be studied with loss of biodiversity and ecosystem. The Catchment area study should include flow rate of water in the stream, volume of water being diverted and major impact on habitation living therein.</p>	<ul style="list-style-type: none"> • PP submitted the copy of Environment Impact study for Kanchanmuda Nala with loss of Biodiversity and Ecosystem. • The flow estimation carried out during catchment area study is separately provided. It is observed that the Flow Rate of Kanchanmuda watershed during 1970 to 2021 is varying from 3.58 to 21.02 MCM/year based on annual rainfall of 304.80 mm and 1785.30 mm respectively. Average being 11.724 MCM/year. It may be concluded that annual flow rate is dependent on annual rainfall in watershed area.
(vi)	<p>Drone video of the ML area mainly covering the source and destination of Kanchanmuda Stream/Nallah.</p>	<p>The drone survey of the ML area is carried out in first week of December 2023. PP submitted the summary of the survey. The size of data collected through Drone Survey being heavy, the same was displayed during appraisal of the compliance to Honorable EAC (Coal Mining). If desired the data will be submitted to MoEF & CC through pen drive.</p>
(vii)	<p>PP should submit the Contour plan for the drainage system.</p>	<p>PP submitted the Contour plan of the drainage system.</p>
(viii)	<p>PP should also mention the exact number of rivulets passing through the ML area flowing</p>	<ul style="list-style-type: none"> • There are various seasonal rivulets of 1st, 2nd, 3rd & 4th order exist within 5 km radius of the mining lease. • Total number of rivulets within 5 km radius from ML is 652 while 100 number of rivulets

	within the 5km of Buffer zone of ML area.	<p>passes through ML area.</p> <ul style="list-style-type: none"> • PP also submitted a map showing rivulets of 1st, 2nd, 3rd & 4th order around 5 km radius of ML area.
(ix)	The PP should study the impact of water management due to channelization/diversion.	<ul style="list-style-type: none"> • It is concluded that the water management of diverted channel has been designed in such a way that the total water generated in mine and external area will be channelized to downstream of Kanchanmuda stream and there will not be any loss of water either peak flow or annual yield of the stream confluence into Kanchan River. <p>Kindly refer the report submitted on Impact of water Management due to Channelization / Diversion for impact of water management due to channelization/diversion.</p>
(x)	PP should explore the possibility to save the stream flowing through the ML area and adjacent to the lease area.	<ul style="list-style-type: none"> • PP submitted a detailed note on the possibility to save the stream flowing through the ml area and adjacent to the lease area.

The PP and NABET Accredited Consultant made a detailed presentation on the proposal and on the additional information sought by the EAC. The Committee deliberated on the proposal and observation of EAC are as follows:

- 1) The proposal is for amendment specific condition no. 11 (xi) of EC dated 03.08.2021 regarding the diversion of Kanchanmuda Nala along with the other several drains.
- 2) The committee noted that as per EC dated 03.08.2021, PP was not allowed the channelization/ diversion of the stream as the same was committed during the transfer of EC as a mandatory EC amendment condition.
- 3) The said proposal was considered in the 50th EAC held on 27.09.2023 and the consultant was unable to address the queries of the committee due to a weak internet connection. Also, the committee found that the presentation did not clearly brought out contentions of the project concerning the catchment area covered under the river. Knowing the facts that the project area forms an important catchment zone with several streams/ drains contributing watershed system of the area, and the area falls within SPA, the committee decided that a sub-committee shall visit the site and bring out the facts about the catchment area fall within the mine lease area before further

consideration of the project and meanwhile PP shall work to comply the points raised during the meeting. Accordingly, the proposal was deferred for want of additional information.

- 4) As regards the query regarding the proper justification for the amendment of EC considering the coal reserves available (in million tonne) near or below the streams with technology intervention. PP submitted that Considering the case that nala is not diverted and a barrier of 50-60 meter is left as per EC condition for plantation of Sal trees along both sides of stream, the mine will be bifurcated into 2 opencast quarries (Eastern and Western quarries) instead of single quarry operation as per Approved Mining Plan and there will be blockade/loss of 38.53 Mtes of coal beneath the nala barrier which amounts to 7 years of coal requirement for Khurja 2X660MW captive power plant). On the query to explore alternate technology/ methods for exploration of such coal reserves to extract coal without diverting the stream PP submitted that two methods were explored like underground mining, High wall mining and More than 30 Mtes of coal reserves will remain blocked even after extraction of coal through underground/High wall mining methods. *The Committee asked the PP whether this diversion is mentioned in the approved mining plan or not. If not then mining plan should be modified accordingly, and PP shall submit a geological plan and corresponding section showing the coal seam position below the nallah.*
- 5) The Committee deliberated on the Biodiversity study of Kanchanmuda Stream/Nallah (source to destination) considering all dependent flora and fauna. PP Submitted that Biological reclamation is the Phase-II of reclamation process. Re-vegetation covers in terms of grass & trees of appropriate species would be raised over the physically reclaimed land for three tier plantation. The Committee asked the PP about the restoration plan of the living system of the Nala. PP submitted that plantation of native plants to maintain biodiversity, strengthening the safety zone to avoid accident by animal falling in to mining pit. The Committee noted that although the chapter on impact and mitigative measure are provided in the report but they are general in nature w.r.t impact of coal mining. The impact on biodiversity due to nallah diversion is not specifically brought out with specific measure for its mitigation/reduction. Further, in the mitigative measure chapter the figure 7.1 shown the diversion route which does not cover all the stream passing through the lease. Further, Committee observed that previously it was suggested for Environment Impact Study for Nallah in the situation of diversion of catchment area be studied with loss of biodiversity and ecosystem. The Committee is not doubting on the work of the expert but is of the view that PP shall get the study done through a reputed government institute.
- 6) As desired in the earlier EAC, PP to carry out proper Catchment area study including carrying capacity of river and stream passing be done with hydrological and watershed data. PP Submitted that catchment area study with hydrological and watershed data was carried out and PP mentioned that the study is designed with safety factor of 220m³/sec as against the required 110 m³/sec. PP further submitted that the carrying

capacity of Kanchanmuda watershed has been estimated to the tune of 17.98 MCM/year. Ecological and social demand in a river basin is 4.53 MCM/year. The net carrying capacity after evaporation is 12.091 MCM/year which is discharged into Kanchan River. PP ensured that there will not be any impact on carrying capacity of Kanchanmuda watershed due to proposed diversion of eastern and western streams with appropriate capacity of diversion channel. The construction of catch drain will be in two phases and the average hydraulic gradient in both phases will be 1:100, the catch drain will be in trapezoid 1.5 H:1, side length with with floor width 4 m, 3m water depth and 2 m free board and the same design and dimension of proposed diversion channel is duly approved by Water Resource Department, Madhya Pradesh vide letter no. Memo no. 4446 / dated 23.05.2023. As regards Environment Impact Study for Nallah in the situation of diversion of catchment area be studied with loss of biodiversity and ecosystem. The Catchment area study should include flow rate of water in the stream, volume of water being diverted and major impact on habitation living therein, PP submitted that it is observed that the Flow Rate of Kanchanmuda watershed during 1970 to 2021 is varying from 3.58 to 21.02 MCM/year based on annual rainfall of 304.80 mm and 1785.30 mm respectively. Average being 11.724 MCM/year. It may be concluded that annual flow rate is dependent on annual rainfall in watershed area.

- 7) PP was asked to mention the exact number of rivulets passing through the ML area flowing within the 5 km of Buffer zone of ML area. PP submitted that there are various seasonal rivulets of 1st, 2nd, 3rd & 4th order exist within 5 km radius of the mining lease. Total number of rivulets within 5 km radius from ML is 652 while 100 number of rivulets passes through ML area. The Committee asked the PP to study the impact of water management due to channelization/ diversion. PP submitted that the water management of diverted channel has been designed in such a way that the total water generated in mine and external area will be channelized to downstream of Kanchanmuda stream and there will not be any loss of water except either peak flow or annual yield of the stream confluence into Kanchan River. PP also submitted the note on the impact of water management due to channelization/ diversion.
- 8) On the query to explore the possibility to save the stream flowing through the ML area and adjacent to the lease area PP submitted that the diversion of external part of the stream particularly eastern and western sector is important for the safety of mine. The mine cannot be operated without having either embankment or diversion all along eastern and western part of the mine lease area. The diverted runoff of external area of eastern and western sector will be ultimately confluence in to main Kanchanmuda stream. PP further submitted that the proposed environmental management plan particularly development of green belt and various other mitigative measures will compensate this loss. Thus, the diversion of external stream is fully justified for safety and operational part of the mine.

The Committee observed that as per the catchment plan shown during the meeting it

is evident that all the 1st order and 2nd order streams are not considered while designing the diversion route. Further, the Committee observed that contour is not properly drawn and are intersecting to each other. The Committee is of the view that PP shall get the study done from a reputed government institute.

- 9) The Committee asked the PP to submit the Drone video of the ML area mainly covering the source and destination of Kanchanmuda Stream/Nallah. PP submitted the that the drone survey of the ML area is carried out in first week of December 2023 and PP displayed the same during the meeting. The committee observed that the plantation done in 7.5-meter belt is not clearly visible. PP should submit detailed progress of planting done so far along with geo tagged photos.
- 10) In addition to the above the Committee also deliberated on the details of water use by people in the downstream area be provided and certified by the local authorities, post closure restoration and cleaning of the diverted Nala. The Committee further observed that the depth of the mine void is 170m and asked the PP to reduce the depth of mine void. The Committee also advised that the Project should have a dedicated Environment Management Cell for ensuring compliance of EC conditions and other statutory requirements related to environment. Further, the Project be aligned with SGD goals.
- 11) Based on the discussions held and documents submitted the Committee **deferred** the proposal of THDC India Limited regarding Amendment in Environment Clearance (EC) granted for Amelia Opencast Coal Mine project with production capacity of 5.6 MTPA in ML area of 1180.2 ha of located in village Pidarwah, Tehsil Singrauli, District Singrauli (Madhya Pradesh) for want of the following information:
 1. Biodiversity study of the stream/ rivulet and its surrounds should be done through reputed/Government Institute/IIT/WII/ICFRE with its mitigation measures particularly the aquatic flora and fauna to clearly bring out impact of the proposed diversion.
 2. Hydrology study of the stream/ rivulet proposed to be diverted be done by Government Institute/NIH.
 3. PP should submit detailed progress of planting done so far along with geo tagged photos.
 4. PP shall submit the inspection report Certified by RO and its ATR.
 5. Post mining maintenance plan, especially de-siltation, for diverted nallah.
 6. Details of downstream impact with respect to ground water recharge and water use by people residing in the downstream area be provided and certified by the local authorities.
 7. PP shall explore the possibility of reducing the depth of mine void.

8. Details w.r.t Environment Management Cell to oversee the implementation of environmental safeguard, ensure compliances and reporting to concerned authorities shall be provided.
9. PP to align project with SDG goals.
10. PP shall clarify if the plan to divert the stream was disclosed in the public hearing and if so what were the comments of the participants. Further, the PP shall obtain the comments of various stake holders and local people on diversion of Kanchanmuda Nala by publishing the advertisement in at least two newspapers.
11. Proposal of diversion of Nala must be a part of approved mining plan.
12. It is observed that the district mentioned in earlier EC is Sidhi while the PP has submitted the district name as Singrauli, PP may clarify.
13. Site visit by the subcommittee as recommended in the 50th meeting shall be conducted.

Agenda No. 11.4

Proposal for grant of Terms of Reference (ToR) of Tokisud Block II Coal Mine (Lease Area 192.26 Ha; production capacity of 1.5 MTPA) of Twenty First Century Mining Private Limited, located at Anchal Patratu, Ramgarh District, Jharkhand State for conducting studies for Environmental Clearance (EC) of the allotted coal block. – Terms of Reference – Regarding.

[Proposal No. IA/JH/CMIN/456147/2023; File No. IA-J-11015/53/2023-IA-II(M);]

[Consultant: P and M Solution; NABET/EIA/2326/RA 0298 valid up to 07.05.2026]

11.4.1: The present proposal is for grant of Terms of Reference (ToR) for Tokisud Block II Coal Mine having mine lease area 192.26 Ha with production capacity 1.5 MTPA, located at Anchal Patratu, Ramgarh District, Jharkhand State. Twenty First Century Mining Private Limited (TFCMPL) has made an application online vide proposal no IA/JH/CMIN/456147/2023 dated 21/12/2024 along with the application in prescribed format (Form-I) and pre-feasibility report for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above.

The proposed project activity is listed at S. No. 1(a) Mining of minerals Under Category “B” of the schedule of the EIA Notification, 2006 and to be appraised at SEIAA Jharkhand but as SEIAA Jharkhand was not functional at the time of submission of application the proposal is considered at Central level. The proposal was earlier considered in the 7th EAC held on 12th -14th February 2024 wherein the Committee *deferred* the proposal for

want of additional information. The PP submitted the information on the PARIVESH Portal vide letters dated 16.03.2024 & 11.04.2024 and the proposal is now placed in the 11th EAC meeting.

11.4.2: Details of the proposal, as ascertained from the proposal documents and as revealed from the discussion held during the meeting, are given as under:

11.4.2.1: Location:

- i) The project area is covered under Survey of India Topo Sheet No. 73E/2 and is bounded by the geographical coordinates ranging from 23°41'41" N and 23°42'49" N and longitudes 85°14'15" E to 85°15'30" E.
- ii) PP reported that the General Conditions are not applicable on this project and the project does not fall under any critically polluted area.

11.4.2.2: Forest Area: PP submitted that the project involves total 160.18 ha of forest land. Forest Clearance application made vide application no FP/JH/MIN/QRY/429832/2023 dated 09.08.2023 was rejected by Forest Dept. for want of approved mining plan. Fresh Forest Clearance application has been raised in PARIVESH Portal on 08-03-2024 vide application no – FP/JH/MIN/QRY/464572/2024. PP further submitted that there is no broken forest area. The extent of forest land in the project (including safety zone and all types of forest land) is 160.18 Ha. Also, the PP stated that there is no violation of FC Act.

11.4.2.3: Protected Area: PP reported that the project is not located within 10 Km of any ESZ/ ESA/ National Park, Wildlife Sanctuary/ Biosphere Reserve/ Tiger Reserve/ Elephant Reserve/ Tiger Corridor/ Elephant Corridor, etc and no violation of WLP, Act is reported. The PP further submitted that WL management plan will be prepared and will be part of EIA EMP report. Regarding the presence of Schedule – I species and the conservation plan, PP submitted the list of Schedule – I species will be obtained from DFO Ramgarh and CWLW approval shall be taken after the grant of ToR.

11.4.2.4: Mining Lease: PP submitted that allocation order No NA-104/7/2022-NA dated 8.02.2023 issued by M/o Coal as per which PP shall be entitled for mining lease. As per mine summary and Geological report of the Block the area is 220 Ha and the Mining plan is prepared and approved over an area of 192.26 Ha. PP submitted that the date of Block allotment is 08.02.2023 and its expiry date is 30 years from the date of Mining Lease execution with the State Govt.

11.4.2.5: Mining Plan: PP submitted that the mining plan & mine closure plan for the project was approved for (capacity 1.5 MTPA, Area 192.26 Ha) vide letter no JHJH023/APP00247/2023 dated 23.10.2023.

11.4.2.6: Method of Mining: The PP has submitted the following:

- i) Method of Mining to be adopted shall be Opencast. The Capacity of the mine applied for normative/peak capacity as per approved mining plan is 1.5 MTPA/ 2.25 MTPA. Mechanized Open Cast method deploying Shovel-dumper combination will be used to excavate coal in three shift basis with deployment of Ancillary Mining equipment like Front End Loaders, dumpers, RDs and leveling machineries. The OB would be removed by conventional mining equipment deploying excavator and transported using dumper with drilling & blasting. In underlying stronger strata of OB, drilling & blasting shall be conducted in scientific way using environment friendly technology.
- ii) The opencast mine is planned up to maximum depth of 235 m on the floor of Argada 'C+D' coal seams at a stripping ratio of 3.89 cum/ T in 1st phase of Mining.
- iii) The total volume of overburden has been estimated as 51.59 Mcum. It is proposed to carry out external dumping on the southern part of the coal block (dip side) over coal bearing zone. Once decoaling of Argada 'C+D' coal seams starts and about 100m of rise- dip length of decoaled area is created on the pit floor; internal dumping is proposed to be started. Due to triangular shape, width of the coal block and dip & high depth of the coal seams; there is very limited scope of internal dumping. About 1.45 Mcum of overburden is projected to be dumped within internal dump whereas remaining 50.14 Mcum of overburden will be dumped over temporary external dump.
- iv) Internal dumping is proposed to be started from 6th year onwards; however external dumping inside mine boundary over coal bearing area will be continued till end of Phase- I mining life in case if the external OB space outside mine is not arranged within 3 years of starting of the mine. It may be noted that, in order to avoid rehandling of this external OB of phase I during phase II operation, it is proposed that revision of this mining plan with clarity of external dump space shall be obtained within 3 years of starting of phase I operation.
- v) Total geological reserve reported in the mine lease area is 127.69 MT with 38.20 MT mineable reserves. Out of total mineable reserve of 38.20 MT, 32.5 MT are available for extraction. Percent of extraction is 25.45%.
- vi) 12 seams with thickness ranging from 0.08-17.00 (m) are workable. Grade of coal is G3 to G14, stripping ratio 3.89 cum/ Tonne while gradient is from 5⁰ to 21⁰, Avg 10⁰

- vii) Life of mine is 24 years.
- viii) The project has 50.14 Mcum external OB dumps in an area of 73.52 Ha with 120 m height and 1.45 Mm³ of OB shall be back filled as internal OB in an area of 15.89 ha with Mm³ of OB is envisaged in the project.
- ix) Total quarry area is 64.11 ha out of which backfilling will be done in 15.89 ha while final mine void will be created in an area of 48.22 ha with a depth of 235m. Backfilled quarry area of 15.89 ha shall be reclaimed with plantation. Final mine void will be converted to water body.

x) **Details of Land usage:**

i. **Pre-mining & Land Use during Mining**

S No	Mining Activity	Proposed Land Use Area (Ha)	Remarks
1	Excavation Area	64.11	
	(i) Backfilled Area (in Excavation Area)	15.89	
	(ii) Excavated Void (in Excavation Area)	48.22	
2	External Dump	73.52	
	(i) Top Soil Dump *	9.94	Area of the dump by the end of 7 th Year
3	Safety Zone	4.82	
4	Haul Road between quarries	-	
5	Road diversion	-	
6	Settling pond	0.85	
7	Road & Infrastructure area	7.14	
	(i) CHP & Washery	0.18	Included in road and infrastructure. Actual area
	(ii) Coal Evacuation Route & Approach Road	3.58	Top of Embankment
8	Garland drains	4.12	
9	Embankment	4.86	
10	Green Belt	5	

	Water Reservoir (Settling Pond)	0.85	Same as S No 6
11	Rationalization area	27.84	
	Total (exclude back filled void & topsoil area)	192.26	18

ii. Post-Mining

S No	Mining Activity	Proposed Land Use Area (Ha)	Land Use (End of Life) Area	Post Mining Land Use (Ha)						
				Agriculture Land	Plantation	Water Body	Public Use	Forest land (Returned)	Undisturbed	Total
1	Excavation Area	64.11	64.11	-	-	-	-	-	-	-
(i)	Backfilled Area (in Excavation Area)	15.89	15.89	-	15.89	-	-	-	-	15.89
(ii)	Excavated Void (in Excavation Area)	48.22	48.22	-	-	-	-	-	48.22	48.22
2	External Dump	63.58	73.52	-	73.52	-	-	-	-	73.52
(i)	Top Soil Dump part of the Dump (by the end of 7th year)	9.94	-	-	-	-	-	-	-	-
3	Safety Zone	4.82	4.82	-	4.82	-	-	-	-	4.82

4	Haul Road between quarries	-	-	-	-	-	-	-	-	-
5	Road diversion	-	-	-	-	-	-	-	-	-
6	Settling pond	0.85	0.85	-	-	0.85	-	-	-	0.85
7	Road & Infrastructure area	7.14	7.14	-	3.52	-	3.62	-	-	7.14
(i)	CHP Washery	0.18	0.18	-	0.18	-	-	-	-	0.18
(ii)	Coal Evacuation Route & Approach Road (Top of Embankment)	3.58	3.58	-	-	-	-	-	-	-
8	Garland drains	4.12	4.12	-	4.12	-	-	-	-	4.12
9	Embankment	4.86	4.86	-	4.86	-	-	-	-	4.86
10	Green Belt	5	5	-	5	-	-	-	-	5
	Water Reservoir (Settling Pond)	0.85	0.85	-	-	0.85	-	-	-	0.85
11	Rationalization area	27.84	27.84	-	-	-	-	-	27.84	27.84
	Total (exclude back filled void & topsoil area)	192.26	192.26	0	111.91	1.7	3.62	0	76.06	192.26

- xi) Details of transportation of Coal: PP submitted that the coal is proposed to transport within the outside mining lease in the following manner:
1. In pit: Coal from Mine shall be brought to the CHP and dumped in stackyard near the CHP for further evacuation from the Mine.
 2. Surface to siding: The nearest Railway siding, Tokisud railway siding located at 2.0 Km from the south end of the block will be used for coal evacuation to prospective customers by rail.
 3. Siding to loading: Loading of railway rakes shall be done through pay loaders. In due course, effort shall be made with Tokisud North Coal Block owners, NMDC to build Rapid loading facility at the siding for loading of coal.
 4. Quantity being transported by Road/Rail/conveyer/ropeway - Evacuation of coal will be in mix to road and rail transportation.
 5. There are no proposed changes in the transportation means.
- xii) PP reported that there is 1 village within the mining lease area and it is planned to be shifted by 2027.
- xiii) **Reclamation**: PP reported that reclamation plan includes Afforestation which shall be done progressively covering an area of 111.73 Ha at the end of the mining. This will include:
1. Reclaimed external OB dump (in ha): 73.52 Ha
 2. Internal d
 3. ump (in ha) – 15.89 ha
 4. Green belt (in ha) 5.00 Ha
 5. Density of tree plantation (in no of plants) – 1500 Nos/ ha
 6. A void of 48.22 ha at a depth of 235 m which is proposed to be converted into water body
 7. Excavation area: 64.11 ha
 8. ML Boundary: 192.26 Ha
 9. Road & Infrastructure area: 7.14 Ha
 10. Embankment Area: 4.86 Ha

11.4.2.7: Legal Issues/ Violation: PP reported that there is no legal issue/ violation w.r.t Environment (Protection) Act, ii) Air(P&CP) Act, Water (P&CP), Act, Forest Conservation Act, Wildlife Protection Act, CRZ Notification, MMDR Act, Factories Act. Further, there is no court case on the project.

11.4.2.8: Baseline Studies: PP reported that this will be included in the EIA Report.

11.4.2.9: Water Requirement: PP reported that the total water requirement will be 550 KLD (Surface Water 500 KLD; Ground Water 50 KLD) and will apply for NOC.

11.4.2.10: R&R Plan: PP reported that R&R plan will be prepared by the user agency which will be submitted to District Administration, for its approval. One small village in Tokisud, Tolas - Mohuatola/ Mohuatoli, is in the southern part of the coal block which would need to be relocated to another area. R&R colony land has been identified near Patratu town. Apart from it, no other major diversion or shifting is envisaged at this stage.

11.4.3: Observation and deliberation of the EAC:

Present proposal was earlier considered in the 7th EAC held on 12th -14th February 2024 wherein the Committee deferred the proposal for want of additional information. PP submitted the following reply on the PARIVESH portal vide letters dated 16.03.2024 & 11.04.2024 and the proposal is now considered in 11th EAC meeting wherein the PP made a detailed presentation on the proposal ADS points. The Committee deliberated the reply submitted by the PP. After deliberation Committee noted the following:

Query-1: As project is located in the Ramgarh District and the same is recorded as CPA list of CPCB, PP is required to submit the letter from SPCB confirming the distance of project site from CPA.

Reply: PP submitted the copy of letter no PC/HBG/Gen/07/24/B-963 dated 10-04-2024 from Member Secretary, Jharkhand State Pollution Control Board wherein it is certified that the distance of Ramgarh from Project site is 29.90 km. PP also displayed the letter during the meeting.

Query-2: Approved mining plan is to be submitted with application form along with the approval letter from MoC.

Reply: PP submitted the copy of Mining Plan approval letter of the dated 23.10.2023. PP also displayed the same during the meeting.

Query-3: Application submitted by the PP for forest diversion has been rejected as mining plan was not approved. PP is required to re-submit the application for forest land diversion before re-submitting the application for ToR.

Reply: PP informed that fresh Forest Diversion proposal has been made on 08-03-2024 vide proposal no FP/JH/MIN/QRY/464572/2024.

Query-4: Details on crusher (number and capacity) to be installed within the lease area to be submitted with proposed mitigation measures for environment.

Reply: PP Submitted that the crusher units proposed to be installed within the lease boundary of the Mine is as given below in the table:

Crusher Unit	Capacity	Nos
Primary sizer/crusher	300tph	1
Secondary sizer/crusher	300tph	1

As stated above, one each primary and secondary crusher unit of capacity 300 TPH is proposed to be installed in the mine for crushing of coal to required (-) 100 mm size.

As part of mitigation measures for environment management, it is proposed that:

- Generation and propagation of dust shall be controlled at source by installation of fixed sprinklers at crusher site, coal stock yards, weighbridges and along transportation road.
- Mobile water sprinkler tanks shall be deployed along the haul roads and on transport road.
- To avoid spillage of Coal from trucks on road - all loaded coal transporting trucks shall be covered by tarpaulin and overloading of trucks will be prohibited
- Transport haul roads will be kept well maintained and Concrete/black topped roads will be developed for better stability and durability;
- Suitable plantation shall be done around the crusher area to arrest the propagation and dispersion of dust.

PP further submitted that the above measures shall be further reviewed in the EIA/ EMP report of the Mine based on ToR and shall be put up for review by MoEF&CC.

Query-5: PP shall obtain the list of Scheduled -1 Species duly authenticated by concerned forest department.

Reply: PP submitted that the list of Schedule-I species has been obtained from concerned department (DFO Ramgarh) vide his letter no 493 dated 07-03-2024. It is observed that there are 7 Schedule-I species present within the 10 Km buffer of the project boundary where three forest divisions namely Ramgarh, Ranchi and Hazaribagh West exist.

Query-6: Details of mineable reserve, extractable reserve and percentage extraction submitted in annexures are different from Mining plan submitted. Similarly, life of mine in mining plan is 11 years whereas in annexures it was reported to 24 years. PP to reconcile the mining details (reserves, extraction, stripping ratio, life of mine, details on OB) and re-submit.

Reply: Regarding the life of the mine PP submitted the following:

- i. Life of the mine as per the approved Mining plan is 12 years. This life of the Mine is for phase I mine plan for which the current mining plan has been approved as without identification of external OB dump space, entire volume of 32.5 MT of coal from Tokisud Block II cannot be extracted.
- ii. The total life of the Mine with phase II mining plan will be 24 years
- iii. Phase II Mining plan is required to be approved within 3 years from the date of obtaining mine opening permission of phase I mining (reference to condition no 11 of the mining plan approval letters dated 23-10-2023).
- iv. The conceptual plan on phase II is part of the approved mining plan and the additional plates are plate no 23 and 24 on pages 123 & 124 respectively.
- v. Keeping the above in mind, the life of the mine has been submitted to be 24 years in ToR application.

PP further submitted the following details regarding the Geological reserves of the mine:

Type of reserves	Phase I Mining as per approved Mining Plan	Phase I & II Mining (part of the conceptual part of phase II submission in the current mining plan)	Remarks
Geological reserve	127.697 MT		
Extractable reserve	13.25 MT	32.5 MT	
Stripping ratio	3.89	4.65	Exact stripping ratio to be known only after approval of the Phase II mining Plan
Life of the Mine	12 years	24 years	
Details on the OB	Given in table below	Given in table below	OB details for phase I & II combined is being shared but the same shall be finalised in phase II mining plan approval by MoC.

Production and OB as per Phase I:

Year	Coal Production (Mt)		Total Overburden (Mcum)		Stripping Ratio (Cum/ T)	
	Progressive	Cumulative	Progressive	Cumulative	Progressive	Cumulative
Year 1	0.25	0.25	0.92	0.92	3.68	3.68
Year 2	0.75	1.00	3.96	4.88	5.28	4.88
Year 3	1.50	2.50	6.27	11.15	4.18	4.46
Year 4	1.50	4.00	6.50	17.65	4.33	4.41
Year 5	1.50	5.50	6.13	23.78	4.09	4.32
Year 6	1.50	7.00	5.56	29.34	3.71	4.19
Year 7	1.50	8.50	5.56	34.90	3.71	4.11
Year 8	1.50	10.00	5.56	40.47	3.71	4.05
Year 9	1.50	11.50	5.56	46.03	3.71	4.00
Year 10	1.20	12.70	4.45	50.48	3.71	3.97
Year 11	0.55	13.25	1.11	51.59	2.02	3.89
Grand Total	13.25		51.59		3.89	

Production and OB for Phase I and Phase II plan:

Year	Coal (Mt)	Waste Volume (Mbcum)	SR
Year-1	0.25	0.92	3.68
Year-2	0.75	3.96	5.28
Year-3	1.50	6.27	4.18
Year-4	1.50	6.50	4.33
Year-5	1.50	6.69	4.46
Year-6	1.50	6.69	4.46
Year-7	1.50	6.69	4.46

Year-8	1.50	6.69	4.46
Year-9	1.50	6.69	4.46
Year-10	1.50	6.69	4.46
Year-11	1.50	7.00	4.67
Year-12	1.50	7.38	4.92
Year-13	1.50	7.38	4.92
Year-14	1.50	7.38	4.92
Year-15	1.50	7.38	4.92
Year-16	1.50	7.38	4.92
Year-17	1.50	7.38	4.92
Year-18	1.50	7.38	4.92
Year-19	1.50	7.38	4.92
Year-20	1.50	7.38	4.92
Year-21	1.50	7.38	4.92
Year-22	1.50	7.38	4.92
Year-23	1.50	5.19	3.46
Total	32.50	151.13	4.65

Query-7: Reconcile the land use details for both pre and post mining as per the approved mining plan of mining lease area of 192.26 ha

Reply: PP submitted the reconciled land details of both pre and post Mining as per the approved mining plan area of 192.26 ha.

Query-8: As Damodar river is flowing along the mine lease boundary, PP is required to submit the details of river HFL, inundation frequency and safety measures proposed to avoid flood inundation. Further details of the study to be conducted for the mining activity in the close vicinity of the river.

Reply: PP Submitted the following:

- A. The HFL recorded in the river in Tokisud area is 363.75 m recorded in the year 1976.
- B. The inundation frequency is zero and no mines has experienced inundation due to Damodar River. A record of the HFL data as recorded in Urimari Mines of Central Coalfields Limited (CCL) (A Govt of India Enterprises) on downstream side is given below.

Central Coalfields Limited
Barka Sayal Area
Urimari OCP

Sub:-Year wise rain fall report in respect of Urimari OCP

Year	year wise rain fall (in mm)	Date of maximum rain fall	Maximum Rain fall on date	Year wise H.F.L (in metre)	Remarks
2014	1111.00	20.06.2014	82	346.12	HFL as on 17.09.1976 = 360.50m
2015	767.00	21.09.2015	70.4	344.23	
2016	1141.60	18.08.2016	70.6	346.89	
2017	1219.00	26.07.2017	157.2	347.5	
2018	732.60	26.08.2018	63.2	343.85	
2019	948.80	27.09.2019	74.8	345.25	
2020	1228.00	24.07.2020	78.8	346.88	
2021	1632.00	31.07.2021	109.8	347.95	
2022	1586.20	11.10.2022	69.8	346.86	
2023	1197.20	22.09.2023	81.8	346.48	

+ *[Signature]*
27/2/24
SURVEYOR
URIMARI OCP

- C. The safety measures proposed to avoid flood inundation from the mine has been given in the Mining Plan and re-produced here for easy reference:
- i) It is proposed to prepare a bund/ embankment, of width 45 m, along the river in order to protect the block from water in rushing from the river. The height of the bund/ embankment will be 3m more than HFL recorded in the region.
 - ii) Wherever mine or part thereof is so situated that there is any danger of inrush of surface water into the mine or part, adequate protection against such inrush shall be provided.
 - iii) Every entrance into a mine shall be so designed, constructed, and maintained that its lowest point (which means the point at which a body of rising water on surface can enter the mine) shall be not less than 1.5 meters above the highest flood level at that point.
 - iv) A careful assessment shall be made against the danger from surface water before the onset of rainy season.
 - v) Every year, during the rains, constant watch shall be kept on the flood levels on the surface of the mine and if at any time the levels cross the highest levels earlier recorded, such levels shall be marked by permanent posts along the

- edges of water and the new highest levels thus observed shall be recorded with the date as the highest flood level on the plans by an actual survey.
- vi) Garland drains shall be provided to drain away the surface rain water from the mine excavated area.
 - vii) Adequate capacity of pumping will be installed. All pumps in designated sumps, will be mounted on floats to prevent drowning in case of unwarranted heavy rainfall.
 - viii) Inspection for any accumulation of water, obstruction in normal drainage and weakening of embankment shall be carried out regularly.
 - ix) The highest flood levels and danger levels at least 1.2 meters below the highest flood level, shall be permanently marked at appropriate places on the surface and whenever water rises towards the danger level at any place, all persons shall be withdrawn from the mine sufficiently in advance and for this purpose adequate arrangements of quick communication to all parts of the mine by effective systems shall be provided and maintained.
 - x) Standing order (SOP) for withdrawal of persons in case of apprehended danger shall be framed and implemented.
 - xi) No working shall be made in any mine vertically below-
 - a) any part of any river, canal, lake, tank or other surface reservoir; or
 - b) any spot lying within a horizontal distance of 15 meters from either bank of a river or canal or from the boundary of a lake, tank or other surface reservoir
 - xii) A competent person shall, once at least in every fourteen days during the rainy season and once at least in every thirty days during other periods of the year, examine every protective measure provided.
 - xiii) The protective measures and workings shall also be inspected, once at least in every quarter by the manager personally.

Query-9: Point wise reply on the additional information sought by the SEAC.

Reply: The MoM of the SEAC review meeting done on 18th August 2023 observed that

Quote

“The project has been allotted an area of 220 Ha by the Ministry of Coal, Govt. of India vide the allotment order no. NA-104/7/2022-NA dated 08.02.2023.

This allotted area of 220 Ha includes part of Damodar River.

The Project Authorities have applied for EC over an area of 190.43 Ha which is stated as lease area.

However, the PAs could not produce any authenticated documents for this lease area of 190.43 Ha. The further stated that the mine plan is under preparation and to be approved by Ministry of Coal, Govt. of India.

Thus, in absence of any authenticated documents the Project Authorities have been asked to submit the Approved Mine Plan as a basis for consideration of 190.43 Ha as the lease area.

The project will be taken up for consideration after submission of Mine Plan duly approved by Ministry of Coal, Govt. of India.”

Unquote

Based on the comment, after approval of the Mining Plan, PP submitted compliance to the above EDS vide letter no TFCMPL/Tokisud/66 dated 27-10-2023 and submitted the approved copy of the Mining Plan to SEAC.

Query-10: Whether the ground water table to be intersected during the mining operation the same needs to be provided. Application to be made to CGWA w.r.t to use of ground water/intersection of ground water as the case may be. Application to be made for surface water utilizations.

Reply: PP submitted that the Ground water table will be intersected during the mining operations. This has been studied through Hydrogeological Study done for Project Area. PP also submitted the Hydrogeological report as additional document at S No 5 of the ToR application.

PP further submitted that application for ground water to CGWA for use of 50 KLD of water during first two years of start of Mining operations has been done and displayed the acknowledgement for same during the meeting.

Observation and recommendation of EAC:

1. Proposal is for grant of Terms of Reference (ToR) of Tokisud Block II Coal Mine (Lease Area 192.26 Ha; production capacity of 1.5 MTPA) of Twenty First Century Mining Private Limited, located at Anchal Patratu, Ramgarh District, Jharkhand State.
2. The Committee observed that the proposed project activity is listed at S. No. 1(a) Mining of minerals Under Category “B” of the schedule of the EIA Notification, 2006 and to be appraised at SEIAA Jharkhand but as SEIAA Jharkhand was not functional at the time of submission of application the proposal was considered at

Central level. The proposal was earlier considered in the 7th EAC held on 12th - 14th February 2024 wherein the Committee *deferred* the proposal for want of additional information. During 7th EAC meeting it was brought to the notice of EAC that an application for ToR was made to concerned SEIAA on 29.05.2023 and after EDS was taken up for discussion in the SEAC on 18.08.2023. Further, the MoM of the concerned meeting was issued on 23.08.2023, asking to submit the approved copy of mining plan of Tokisud Block II Coal Mine, which was submitted to SEAC on 30.10.2023. Since submission of the reply to MoM, the status of ToR application on the site is showing as “Deferred by SEAC”. When the matter was brought to the notice of the Nominated Authority, M/o Coal on 27.11.2023, it was advised to make a fresh application to MoEF&CC Centre. Therefore, PP applied to MoEF&CC. The PP submitted the information on the PARIVESH Portal vide letters dated 16.03.2024 & 11.04.2024 and the proposal is now placed in the 11th EAC meeting. Further, it was brought to the notice of EAC that SEIAA Jharkhand has been constituted now but as per Ministry’s Circular dated 23.10.2017 if a Cat ‘B’ proposal already appraised by Central level once then it will continue to appraised and decided at central level. Therefore, the project is considered at Central level and PP has advised to withdraw the application already made to SEIAA.

3. PP submitted that allocation order No NA-104/7/2022-NA dated 8.02.2023 issued by M/o Coal as per which PP shall be entitled for mining lease. As per mine summary and Geological report of the Block the area is 220 Ha and the Mining plan is prepared and approved over an area of 192.26 Ha. Mining plan & mine closure plan for the project was approved for (capacity 1.5 MTPA, Area 192.26 Ha) vide letter no JHJH023/APP00247/2023 dated 23.10.2023 of M/o Coal. As per mining plan approved by M/o Coal the lease area is mentioned as 192.26 Ha. PP submitted that the date of Block allotment is 08.02.2023 and its expiry date is 30 years from the date of Mining Lease execution with the State Govt. The Committee observed that the mining plan is approved for an area of 192.26 Ha after excluding a part of river. PP shall ensure that the mining Operations shall be carried out only within the area for which the mining lease is available. No mining operations shall be carried out outside the lease area.
4. Baseline data was generated in the Pre-Monsoon Season 2023 from 01.03.2023 to 31.05.2023 which in line with Ministry’s OM dated 8.06.2022.
5. PP submitted that the project involves total 160.18 ha of forest land. Forest Clearance application has been raised in PARIVESH Portal on 08-03-2024 vide application no – FP/JH/MIN/QRY/464572/2024. PP further submitted that there is no broken forest area. The extent of forest land in the project (including safety zone and all types of forest land) is 160.18 Ha. Also, the PP stated that there is no violation of FC Act.

6. PP reported that the project is not located within 10 Km of any ESZ/ ESA/ National Park, Wildlife Sanctuary/ Biosphere Reserve/ Tiger Reserve/ Elephant Reserve/ Tiger Corridor/ Elephant Corridor, etc and no violation of WLP, Act is reported. PP also submitted a certificate with respect to proximity of PA/ESZ w.r.t mine lease from DFO vide letter dated 28.06.2023.
7. The PP further submitted that WL management plan will be prepared and will be part of EIA EMP report. Regarding the presence of Schedule – I species and the conservation plan, PP submitted the list of Schedule – I species will be obtained from DFO Ramgarh and CWLW approval shall be taken after the grant of ToR.
8. PP Submitted that there is no court case pending.
9. Method of Mining to be adopted shall be Opencast. Mechanized Open Cast method deploying Shovel-dumper combination will be used to excavate coal in three shift basis with deployment of Ancillary Mining equipment like Front End Loaders, dumpers, RDs and leveling machineries. The OB would be removed by conventional mining equipment deploying excavator and transported using dumper with drilling & blasting. In underlying stronger strata of OB, drilling & blasting shall be conducted in scientific way using environment friendly technology.
10. Life of mine is 24 years.
11. As regards the transportation of coal PP submitted that Evacuation of coal will be in mix to road and rail transportation. The Committee is of the view that PP in PFR already submitted that an independent CHP-dump station/train loading stations have been proposed to handle the entire production of ROM coal from the mine and looking in to the capacity of the mine, it is proposed to install a Semi-Mobile Coal Handling Plant matching with the capacity of open pit mine. The Committee therefore is of the view that in case PP increases the production over 2.0 MTPA in future then transportation of coal shall be only through belt conveyor from pit head to siding and from there through railway.
12. PP reported that the total water requirement will be 550 KLD (Surface Water 500 KLD; Ground Water 50 KLD) and will apply for NOC.
13. PP in the Form-1 mentioned that general condition is not applicable for the project and project does not fall under CPA. The Committee observed that as per CEPI Assessment 2018 the Ramgarh falls under the SPA. Further, the distance of the lease from the Ramgarh City is 29.40 Km as letter dated 10.04.2024 issued by Member Secretary, Jharkhand State Pollution Control Board. The Committee is of the view that letter issued by concerned SPCB is not much clear about whether the project is falling under CPA/SPA. Further, as per DSS analysis the project is not located within 10 KM of any CPA/SPA. The Committee is of the view that PP shall

obtain a clear certificate in this regard from concerned SPCB and submit at the time of EC application. However, in case project falls under SPA then PP shall incorporate necessary safeguard for the same in EIA/EMP Report as per specific ToR prescribed below.

14. W.r.t mining plan approval, EAC observed that PP has submitted the copy of Mining Plan approval letter of the dated 23.10.2023. EAC observed that mining plan for phase I is approved as per the aforesaid mining plan with 13.25 MT of extractable reserve (Life of Mine: 12 years). Cumulative (Phase I and II) extractable reserve is 32.5 MTPA (Life of Mine: 24 years). EAC observed that as per Para 11 of the aforesaid letter it has been mentioned that successful bidder has to explore the possibility for identification of suitable land for OB dumping in and around the coal block and that the bidder may explore to submit and prepare the mining plan in two phases i. e without outside dumping and with outside dumping after identification of external land. Taking into this consideration, approval is granted with the condition that the PP shall submit the revised mining plan incorporating the liquidation programme for balanced reserve within three years of grant of mine opening permission with additional land for dumping outside vesting boundary. The Committee observed that the allotment order for the block is for an area of 220 Ha while the mining plan is approved for an area of 192.26 Ha. The Committee advised PP to restrict the mining Operations within the area approved in the mining plan for which the mining lease has been received and no external OB dump should be used until the Mining Lease for the same has been received from the State Govt and the mining operations should be restricted in the approved mining lease area only.
15. As Damodar river is flowing in vicinity the mine, EAC noted the PP has submitted safety measures safety measures to avoid flood inundation. However, committee is of the view that scientific study shall be conducted to ascertain precautions to be taken to ensure safety against the Damodar River and therefore the hydrological study shall be carried out by some Government Institute. Detailed Precautions as per the findings of the study shall be implemented and made part of the EMP. Further, as the project lies in the vicinity of Damodar river, PP shall submit a Certificate from competent authority that river Damodar does not form part of ML area.
16. Based on the discussion held and documents submitted the Committee **recommended** the proposal for grant of **Term of Reference (ToR)** of Tokisud Block II Coal Mine (Lease Area 192.26 Ha. having 1.5 MTPA capacity) of Twenty First Century Mining Private Limited, located at Anchal Patratu, Ramgarh District, Jharkhand State. *The Committee in addition to standard ToR for opencast mine EAC also prescribed the following Specific ToR:*

Specific ToR:

- 1) *PP has to prepare the EIA-EMP report based on the valid baseline data and thereafter conduct the Public Consultation (including public hearing), through concerned SPCB in the concerned districts as per the provisions/procedure contained in the EIA Notification, 2006 (as amended) and OM issued by MoEF&CC in this regard.*
- 2) *PP shall submit the EIA/EMP report after the plagiarism check using authenticated plagiarism software.*
- 3) *Plot the wind rose diagram using the typical meteorological year (TMY) data for the period considered for the study. The monitoring units shall be deployed in the field based on the coverage area ratio and direction of the wind. A mathematical model shall be developed for the local site rather than using the standard model available in software for both air & water quality modelling.*
- 4) *PP shall prepare the mining plan in such a way that it should provide the details of diversion of canal/nallha/roads etc. involved in this project in the same. Further, no mining activities (except transportation) including OB dumping shall take place outside the lease area. Further, the total excavation (minerals, waste, top soil) to be excavated needs to bring out clearly in production and development plan. The mineable reserves, blocked reserves need to be mentioned along with life of mine. PP should add an annexure in the mining plan clearly showing the year-wise production and development plan (tabular format) till the end of life of mine. The location of mineral stacking, dumping sites, plantation and other infrastructures needs to bring out clearly in the mining plan. PP needs to bring out the waste to be generated during the entire life of mine and where it will be dumped/backfilled.*
- 5) *Scientific study shall be conducted to ascertain impact of mining on the Damodar River and precautions to be taken to ensure safety against the Damodar River. The study should address the impact of mining on Damodar River Detailed Precautions as per the findings of the study shall be implemented and made part of the EMP. Further, as the project lies in the vicinity of Damodar river PP shall submit a Certificate from competent authority that river Damodar does not form part of ML area. The study shall be carried out by some Government Institute.*
- 6) *As the project involve ground water intersection a Hydrological study shall be carried out by some Government Institute. Further, PP shall comply with Ministry's OM dated 23.05.2019 and provide necessary details/studies in EIA/EMP Report.*

- 7) *PP shall carry out a detailed study and prepare a diversion plan (canal/nallah/road etc.), if any, including the impact of such diversion on environment and local community from a reputed government institute along with cost benefit analysis.*
- 8) *PP shall submit the drone video & photographs of mined area, fresh lease area to be mined and existing and proposed transportation route.*
- 9) *PP should submit the detailed plan in tabular format (year-wise for life of mine) for afforestation and green belt development in and around the mining lease. The PP should submit the number of saplings to be planted, area to be covered under afforestation & green belt, location of plantation, target for survival rate and budget earmarked for the afforestation & green belt development. In addition to this PP should show on a surface plan (5-year interval for life of mine) of suitable scale the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years. The capital and recurring expenditure to be incurred needs to be submitted. Plantation plan should be prepared in such a way that 80% of the plantation to be carried out in first 5 years and for the remaining years the proposal for gap filling. The seedling of height not less than 2 meters to be selected and accordingly cost of plantation needs to be decided. In addition to this, plantation in the safety zone at lease boundary the plantation should be planned in such a way that it should be completed within 2 years only.*
- 10) *PP should submit the quantity of surface or ground water to be used for this project. The complete water balance cycle need to be submitted. In addition to this PP should submit a detailed plan for rain water harvesting measures to be taken. The PP should submit the year wise target for reduction in consumption of the ground/surface water by developing alternative source of water through rain water harvesting measures. The capital and recurring expenditure to be incurred needs to be submitted.*
- 11) *PP should clearly bring out the details of the manpower to be engaged for this project with their roles /responsibilities/designations. In addition to this PP should mention the number and designation of person to be engaged under Environment Management Cell for implementation of environmental management plan (EMP). The capital and recurring expenditure to be incurred needs to be submitted.*
- 12) *PP should submit the year-wise, activity wise and time bound budget earmarked for EMP, occupational health surveillance, and activities proposed to address the issues raised during Public Hearing. The capital and recurring expenditure to be incurred needs to be submitted.*

- 13) *PP should clearly bring out that what is the specific diesel consumption ~ (Liters/Tonne of total excavation & mineral) and steps to be taken for reduction of the same. Year-wise target for reduction in the specific diesel consumption needs to be submitted. PP shall also explore the possibility of using e-vehicles/LNG/CNG based mining machineries and trucks for mining operation and transportation of coal.*
- 14) *All the certificates viz. Involvement of Forest land, distance from protected area, list of flora & fauna should be duly authenticated by Forest Department. The Certificate should bear the name, designation, official seal of the person signing the certificate and dispatch number.*
- 15) *PP should clearly show the transport route of the mineral and protection and mitigative measure to be adopted while transportation of the mineral. The impact from the center line of the road on either side should be clearly brought out supported with the line source modelling and isopleth. Further, frequency of testing of Poly Achromatic Hydrocarbon needs to be submitted along with budget. Based on the above study the compensation to be paid in the event of damage to the crop and land on the either side of the road needs to be mentioned. The PP should provide the source of equations used and complete calculations for computing the emission rate from the various sources. The Ground level concentration of various pollutants in worst case and control case scenario needs to be submitted. The cumulative impact of other activities needs to be considered in EIA/EMP Report.*
- 16) *To support the transportation road, PP shall carry out the traffic study for one month along with the mitigation measures to control air pollution.*
- 17) *PP shall submit the action plan to adhere the Plastic Waste Management Rules 2016 and to adhere Ministry's OM dated 18/07/2022.*
- 18) *PP shall submit design details of all Air Pollution control equipment (APCEs) to be implemented as part of Environment Management Plan vis-à-vis reduction in concentration of emission for each APCEs.*
- 19) *The PP should ensure that only NABET accredited consultant shall be engaged for the preparation of EIA/EMP Reports. PP shall ensure that accreditation of consultant shall be valid during the collection of baseline data, preparation of EIA/EMP report and during the appraisal process. The PP and consultant should submit an undertaking the information and data provided in the EIA Report and submitted to the Ministry are factually correct and PP and consultant are fully accountable for the same.*

- 20) *The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.*
- 21) *PP shall submit a plan for the installation of a belt conveyor for the transportation of raw coal and a timeline for installation of the same.*
- 22) *As per the Ministry's OM dated 30.09.2020, to address the concern raised during the Public consultation including the public hearing, the Project Proponent is required to submit the detailed activities proposed with year-wise budgetary provisions (Capital and recurring). Activities proposed shall be part of EMP.*
- 23) *Details on renewable energy proposed to be installed as energy conservation measures shall be submitted.*
- 24) *PP shall align its activities to one/few of the Sustainable Development Goals (SDG) and start working on the mission of net zero by 2050. PPs shall update the same to the EAC.*
- 25) *PP should provide in the EIA Report details of the statutory clearances, permissions, no objection certificates, consents etc. required for this project under various Acts, Rules and regulations and their status or estimated timeline after the grant of EC.*
- 26) *The budget to be earmarked for the various activities shall be decided after perusal of the Standard EC Conditions published by the Ministry.*
- 27) *Detailed Wild Life Conservation plan for Schedule 1 species shall be prepared for conservation of the species. PP shall ensure that a conservation plan shall be prepared and approved by the CWLW.*
- 28) *As project is in Ramgarh district, adequate measures for keeping the pollution levels (air, water, noise, land etc) within the permitted limits shall be submitted in the EIA report with budgetary provision. The other specific ToR in case project falls under SPA are as follows:*
 - (i) *Transportation of materials by rail/conveyor belt shall be implemented and PP shall submit a feasibility study with timeline for its implementation in the EIA/EMP.*
 - (ii) *Encourage use of cleaner fuels for trucks, If the roads required to be widened upto nearest railway siding, the same be constructed to avoid traffic congestion.*

- (iii) *Plantation plan should be prepared in such a way to i) Increase green belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever feasible, ii) Greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc. shall be implemented.*
- (iv) *Assessment of carrying capacity of mine & road transportation shall be done as per the State Plan/instructions and the details should be provided in EIA/EMP.*
- (v) *Reuse/recycle of treated wastewater shall be implemented as feasible with latest technology. Zero liquid discharge concept may be adopted. Details to be provided in EIA/EMP.*
- (vi) *PP to install Continuous monitoring station for ambient air quality and also continuous effluent quality in ETP shall be installed. Data so generated shall be linked with respective SPCB and CPCB websites. PP shall provide the details of the same in EIA/EMP with budgetary provisions.*
- (vii) *A detailed water harvesting plan may be prepared by the project proponent for water augmentation and included in EIA/EMP.*
- (viii) *The project proponent shall install STP for generated domestic wastewater and should meet for discharge standards. PP shall provide the details of the same in EIA/EMP with budgetary provisions.*
- (ix) *More stringent norms for management of hazardous waste like oil container, ETP sludge etc shall be adopted. The waste generated should be preferably utilized in co-processing. PP shall provide the quantity of the waste to be generated and steps to be taken for its utilization/minimization and handling in EIA/EMP.*
- (x) *Monitoring of compliance of EC conditions may be submitted with third party audit every year. PP shall provide the details of the agency to be involved for the same in EIA/EMP.*

Agenda No. 11.5

Proposal for Environment Clearance to Vindhya Underground Mine, located at villages – Dagdauwa and Mahura, Tehsil – Nowrozabad, District – Umaria, State – Madhya Pradesh (ML Area 350 Ha, capacity 0.705 MTPA), by South Eastern Coal Field Ltd. – Regarding Revalidation of EC as per S.O. No. 1530(E) dated 06/04/2018

[Proposal No. IA/MP/CMIN/76539/2005; File No. J-11015/20/2001-IA. II (M); Consultant: CMPDIL; NABET Certificate No. NABET/EIA/2124/RA 0258; Valid till 22.08.2024]

11.5.1: Vindhya Underground Mine has made an online application vide proposal no. IA/MP/CMIN/76539/2005 Dated 27.08.2018 seeking revalidation of Environment

Clearance (EC) dated 18.02.2005, as per notification S.O. 1530(E) dated 6.04.2018 and under the EIA Notification, 2006 for the project. The proposed project activity is listed at schedule no 1(a) Mining of minerals Under Category “A” of the schedule of the EIA Notification, 2006 at the time of application made on 14.09.2018 and accordingly appraised at Central Level. The proposal is now a Cat “B” project according to S.O 1886(E) dated 20.04.2022, but as per the Ministry’s Circular dated 23.10.2017 if a Cat ‘B’ proposal has already been appraised at Central level once, then it will continue to be appraised and decided at central level.

The present proposal of Vindhya Underground Mine located in Dagdauwa and Mahura Villages of Nowrozabad Tehsil, Umaria District, Madhya Pradesh State is for obtaining re-validation of EC under EIA Notification, 2006, in compliance of the Gazette Notification S.O. No. 1530(E) dated 06/04/2018, for existing project which has already obtained EC vide letter no. J-11015/20/2001- IA.II (M) dated 18.02.2005 under EIA Notification, 1994 for the production capacity of 0.705 MTPA in the leasehold area of 419.33 Ha. Earlier, the project was considered in the 38th EAC meeting held on 27.09.2018 wherein the committee deferred the proposal for want of additional information. PP submitted the same vide letter dated 17.04.2024 and uploaded the same on the PARIVESH Portal.

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

11.5.2.1: Location:

- i) The project area is covered under Survey of India Topo Sheet No. 64A/15 and is bounded by geographical coordinates ranging from 23⁰15’28” N to 23⁰ 16’17” N and longitudes 80⁰53’23” E to 80⁰55’33” E.
- ii) The project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC vide its OM dated 13th January 2010 has imposed a moratorium on the grant of Environment Clearance.

11.5.2.2: Forest Area: PP Submitted that there is no forest area involved and there is no violation of the FC Act.

11.5.2.3: Protected Area: PP Submitted that the project is not located within 10 km of any ESZ/ESA/National Park/Wildlife Sanctuary/Biosphere reserve/Tiger reserve/Elephant reserve/Tiger Corridor/Elephant Corridor etc.

11.5.2.4: Previous Approvals: PP reported that EC was granted vide Letter No J-11015/20/2001- IA. II (M) dated 18.02.2005 for 0.705 MTPA for the area of 419.33 Ha under EIA 1994.

11.5.2.5: Mining Lease: PP reported that the mine lease area is 419.33 Ha. The total land requirement is 419.33 Ha, out of which 350 Ha is the lease area, 30.943 Ha is an area for infrastructure and 38.387 Ha is for combined colony acquired outside the lease area.

11.5.2.6: Mining Plan: PP Submitted that the mining plan/Project Report for the project was approved for (Capacity-0.705 MTPA, Area- 419.33 Ha) vide letter dated 27.03.1998 & progressive mine closure plan approved vide letter dated 27.01.2014.

11.5.2.7: Method of Mining: PP submitted the following:

- (i) The method of Mining to be adopted shall be underground- Development by Bord & Pillar method with SDL & LHD and depillaring with a continuous miner (CM). The Capacity of the mine applied for Normative capacity/peak capacity as per the approved mining plan is 0.705 MTPA.
- (ii) Total geological reserve reported in the mine lease area is 18.08 MT with 16.07 MT mineable reserves as per PR. Out of the total mineable reserve of 16.07 MT, 9.99 MT are available for extraction at the time of PR preparation. However, as of 01.04.2024, only 1.223 MT reserve is available for extraction.
- (iii) JB, L-0, and L-IB seams with thicknesses ranging from 1.5- 2.32 m, 2.0- 4.0 m, and 3.0- 4.0 m respectively are workable. The grade of coal is C/D (G10), stripping ratio NA while the gradient is 1 in 13.
- (iv) The Life of mine is 3 years as of 01.04.2024
- (v) **Details of Land usage**

i. Pre mining (Area in Ha).

S.N o.	Land Use	Within ML Area (ha)	Outside ML Area (ha)	Total
1.	Agricultural Land	308.768	43.083	351.851
2.	Forestland	-	-	-
3.	Waste land	-	-	-
4.	Grazing land	-	-	-
5.	Surface Water Bodies	3.232	-	3.232
6.	Settlements	-	-	-
7.	Other(Specify)-	38.00	26.247	64.247

	Govt. land			
Total		350.00	69.33	419.33

Note- Out of 69.33 of total outside the mine lease area, 50.967 Ha land is already acquired for residential colony and approach road.

ii. Post-Mining: (Area in Ha).

S.No.	Type	Total Area	Reclaimed Area	Un-reclaimed area
1.	Excavation/Quarry Area:	NA	NA	NA
	(a)Backfilled areas	NA	NA	NA
	(b)Excavated Void	NA	NA	NA
2.	External Dump	NA	NA	NA
3.	Safety Zone	NA	NA	NA
4.	Road and infrastructure	80.894	NA	80.894
5.	Garland Drains	NA	NA	NA
6.	Embankment	NA	NA	NA
7.	Plantation/Renewable energy	279.34	NA	279.34
7.	Others- Undisturbed Area	59.096	NA	59.096
Total (in Ha)		419.33	NA	419.33

(ii) **Details of transportation of Coal:** PP Submitted that the coal is proposed to transport within the outside mining lease in the following manner:

(iv) Inpit: Through conveyor belt to surface bunker

(v) Surface to siding: By Trucks/tippers

(vi) Siding to consumer: By railway through wagons and to local consumers by Trucks

(vii) Quantity being transported by Road/Rail/conveyer/ropeway – all

(viii) Proposed change in transportation means if any, give details - No

(iii) **Detailed Status of Progressive Mining Closure Plan:** Progressive Mining Closure Plan approved on 27.01.2014 and there is no deviation from the approved progressive MCP.

(iv) Out of the total mining lease area of 419.33 Ha, 400.967 Ha has already been acquired. There are 2 number of villages within the mining lease area. Out of

which none of the villages has been shifted and no villages are planned to be shifted by mining activity as it is an underground mine.

11.5.2.8: Legal Issues/ Violation: PP reported that there is no legal issue/violation w.r.t i) Environment (Protection) Act, ii) Air(P&CP) Act, Water (P&CP), Act, Forest Conservation Act, Wildlife Protection Act, CRZ Notification, MMDR Act, Factories Act. Further, there is no court case on the project.

11.5.2.9: Production Details: PP Submitted the details of actual coal production vis-à-vis sanctioned capacity with existing EC since the inception of the mine:

Year	EC sanctioned capacity (MTPA)	Actual production (MTPA)	Excess production beyond the EC sanctioned capacity
1994-95	Consented Capacity: 0.30	0.003775	Nil
1995-96	0.30	0.054208	Nil
1996-97	0.30	0.121850	Nil
1997-98	0.30	0.178550	Nil
1998-99	0.30	0.211100	Nil
1999-00	0.30	0.207825	Nil
2000-01	0.30	0.235050	Nil
2001-02	0.30	0.252700	Nil
2002-03	0.30	0.279002	Nil
2003-04	0.30	0.312000	0.012
2004-05	EC Capacity: 0.705	0.339000	Nil
2005-06	0.705	0.270005	Nil
2006-07	0.705	0.200300	Nil
2007-08	0.705	0.211860	Nil
2008-09	0.705	0.213500	Nil

2009-10	0.705	0.216500	Nil
2010-11	0.705	0.230090	Nil
2011-12	0.705	0.120200	Nil
2012-13	0.705	0.113200	Nil
2013-14	0.705	0.127300	Nil
2014-15	0.705	0.163200	Nil
2015-16	0.705	0.283800	Nil
2016-17	0.705	0.300000	Nil
2017-18	0.705	0.570002	Nil
2018-19	0.705	0.635004	Nil
2019-20	0.705	0.160108	Nil
2020-21	0.705	0.436858	Nil
2021-22	0.705	0.509761	Nil
2022-23	0.705	0.491124	Nil
2023-24	0.705	0.465290	Nil

11.5.2.10: Baseline Studies: PP Submitted that the Baseline data was acquired during post-monsoon period from October'22 to December'22

Period	October'22 to December'22 (post-monsoon period).
AAQ parameters at 9 Locations (min and max)	PM _{2.5} = 16 To 47µg/m ³ PM ₁₀ = 31 To 167µg/m ³ SO ₂ = 5 to36µg/m ³ No _x = 13 To 45µg/m ³
Incremental GLC Level	PM ₁₀ =0.048µg/m ³ SO ₂ =0.029µg/m ³

	NO _x = 0.042µg/m ³ PM _{2.5} = 0.031µg/m ³
Ground water quality at 4 Locations	pH: 7.21 to 7.97, Total Hardness: 190 to 648 mg/l, Chlorides: 10.5 to 128 mg/l, Fluoride: 0.18 to 0.92 mg/l. Heavy metals: Zinc- 0.07 to 0.12 mg/l
Surface water quality at 4 Locations	pH: 6.58 to 7.49. DO: to mg/l and BOD: BDL mg/l. COD: 14 to 20 mg/l
Noise levels L _{eq} (Day and Night)	41.50 to 63.30 for the day time and 33.50 to 42.90 for the Nighttime.
Traffic assessment study findings	Traffic study has not been conducted.
Flora and fauna	Presence of schedule I fauna and endangered Flora is not seen.

PP reported that the Laboratory involved in analysis of water, air, noise & soil quality data, etc. has been accredited by the NABL/ MoEF&CC bearing the Certificate of Accreditation vide No. NABET/EIA/2124/ RA 0258 valid till 22.08.2024.

11.5.2.11: Water Requirement: PP submitted that the source water used is Ground Water and NoC for the same has been obtained from CGWA vide application no. CGWA/NOC/MIN/ORIG/2021/12207 for the capacity of 1500.00 m³/day. Water requirement submitted by the PP is 740 KLD, out of which Domestic water requirement is stated as 400 KLD and Industrial water requirement is stated as 340 KLD.

The details of solid and hazardous waste generation along with its mode of treatment/disposal are furnished as below:

Sl N	Type of Waste	Source	Quantity (TPA)	Mode of Treatment	Disposal	Remarks
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o						
1.	Used oil (Cat. 5.1)	UG mining and ancillary machinery	0.639M.t	Collected and stored in steel barrels and kept in covered shed with pucca platform.	Through e-auction	
2.	Wastes containing residues of oil (Cat. 5.2)	UG mining and ancillary machinery	0.011 M.t	Collected and stored in steel barrels and kept in covered shed with pucca platform.	Agreement made for disposal through MPPCB approved common disposal facility.	

11.5.2.12: Public Consultation: PP submitted that Public Consultation was conducted on 07.12.2000 at the Conference Hall Collectorate, Distt. Umaria (MP). Presiding officer of the same was Collector, Umaria. The major issues raised in the public hearing was that there is a practice of providing free coal to the employees for domestic use. Such practice causes pollution and health hazards among the population and imbalance in the nature. Coal transport by road should be restricted and providing coal to the employees should be stopped. PP submitted that details of the same were given as advertisement in Nav Bharat and Samay Samachar on 06.11.2000 and 08.11.2000. PP further submitted that Public Notice for revalidation was also given in Raj Express and Times of India and the same was held on 30.12.2023. PP submitted that no representation was received in writing from the district and outside of district. The same was confirmed by RO MPPCB Shahdol vide letter dated 23.02.2024.

11.5.2.13 EMP: PP reported the total EMP Cost as Rs. 92.42 Lakh (capital) and 352.35 Lakh (recurring). Mine Closure cost for the entire life (progressive and final) is Rs. 678.623 Lakhs.

11.5.2.14: Plantation: PP reported that an Existing green belt has been developed in a 51.0 ha area which is about 12.16 % of the total project area of 419.33 ha with a total sapling of 1,27,500. PP submitted that Approx. 279.0 Ha land is taken into possession/having surface right for depillaring purposes and the plantation area comes to approx. 33% of surface right. PP proposed that 1,02,500 saplings in 41.0 Ha of land will be planted during the balanced life of the mine. Gap plantation will also be done.

11.5.2.15: Certified Compliance Report: PP submitted that CCR dated 16.01.2024. The Action taken report regarding the partially complied condition was prepared and submitted vide letter no. SECL/JOH/Env/24-25/08 dated 17.04.2024.

11.5.2.16: R&R Plan: The project involves 17 Project affected families (PAFs), who have already paid compensation of Rs. 62.88 Cr. in lieu of house plot and subsistence allowance as per CIL and state norms.

11.5.2.17: Project Cost: The existing capital cost of the project was Rs. 69.7025 Crores and the capital cost for environmental protection measures is proposed as Rs. 92.42 Lakhs. PP reported that the total manpower requirement is 706 and as of April 1, 2023, Vindhya UG has 677 employees.

11.5.2.18: Consultant: The Project Proponent engaged CMPDIL bearing the Certificate of Accreditation vide No. NABET/EIA/2124/ RA 0258 valid till 22.08.2024.

11.5.2.19: Undertaking: PP submitted undertakings vide letter dated 2.05.2024 to the effect that i) there is no construction/ mining done at the site or the construction done without any deviation as per previous EC obtained vide no. J-11015/20/2001-IA-II(M) dated 18.02.2005, ii) That there is no litigation on the project at NGT or any other court of law, iii) That the land has been acquired under the CBA Act, 1957. The land is in our possession and R&R is completed for 256 out of 262 PAPs. The compensation as per state government and CIL norms of balance 6 PAPs has been deposited in the tribunal, which will be settled after resolution of their family dispute/ court case, iv) that there has been no increase in the production capacity and the mining lease area of the said project, after obtaining EC for the production capacity of 0.705 MTPA, v) that there has been no change in mining namely mining method, mining plan, mineral transportation, water requirement, reclamation plan after obtaining EC for production capacity of 0.705 MTPA, vi) that the mining operations may be restricted within 350 Ha of land and vii) that the mine has not discontinued the mining operations for a period of more than 5 years from the date of application of grant of EC after obtaining EC for production capacity of 0.705 MTPA. and viii) regarding the correctness of data and information submitted to EAC and MoEF&CC.

11.5.3: Committee after deliberations noted the following:

The proposal was initially considered in the 38th EAC meeting held on 27.09.2018 wherein the committee deferred the proposal for want of additional information. PP submitted the reply vide letter dated 17.04.2024 and uploaded the same on the PARIVESH portal.

In reply to the ADS raised during the EAC meeting dated 27.09.2018; PP submitted the following:

S.No.	ADS Point	Reply/Response of PP
1.	EIA/EMP report based on one season baseline data	The EIA/EMP Report based on one season data (from Oct. 22 to Dec. 22) is prepared and submitted to ministry on 17.04.2024
2.	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.	Public notice regarding the 'present coal mining operations inviting comments and their redressal' in respect of Vindhya u/g has been published through the Madhya Pradesh Pollution Control Board in the Raj Express & Times of India on 30.12.2023. No comments received, copy of letter from RO, MPPCB Shahdol regarding the same is submitted.
3.	Valid Mining Plan and the Progressive Mine Closure Plan duly approved by the competent authority.	The mining plan/Board approval and the progressive mine closure plan are duly approved by the SECL Board on 28.03.1998.
4.	Compliance status of the conditions stipulated in the environmental clearance from the concerned Regional office of the Ministry.	The Certified Compliance report vis-à-vis the EC conditions compliance status of the mine issued by the IRO, Bhopal of the MoEF&CC. The action taken report in respect of the CCR is prepared and sent to MoEF&CC on 17.04.2024
5.	Consent to operate from the State Pollution Control Board for the present mining operations.	Consent to operate renewal obtained by the MPPCB vide consent no. AW-59290 dated 25.11.2023, valid up to 31.12.2024.

6.	Redressal of issues raised during the last public hearing conducted by the SPCB	The issues raised during the last public hearing of Vindhya u/g mine conducted on 07.12.2000 have been addressed.
7.	Coal production realised from the mine from 1993-94 vis-a-vis capacity stipulated in the environmental clearance.	Total Coal production from the mine since 1993-94 to 2022-23 is 7.913 MT, details submitted to ministry vide letter dated 17.04.2024
8.	Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.	The report on need assessment survey for the activities proposed under the CSR and the comprehensive plan has been prepared accordingly for implementation by the project proponent.
9.	Details of court cases and the compliance of the orders, if any.	No court cases have been registered against the project as on date.

The PP and NABET Accredited consultant made a detailed presentation and the Committee deliberated on the various aspects of the project including compliance with ToR conditions/ EIA/EMP report / Baseline data/ Transportation route/plantation etc. and the following are the observations of the EAC:

- 1) EC obtained vide no. J-11015/20/2001-IA-II(M) dated 18.02.2005 under EIA 1994 over an area of 419.33 Ha (comprising 350 Ha of total lease area) and capacity 0.75 MTPA.
- 2) The instant proposal is for the grant of re-validation of EC under EIA 2006 (as amended) as per provision of S.O 1530(E) dated 6.04.2018 read with OM dated 16.02.2021.
- 3) PP applied under extension of EC in PARIVESH Portal on 14.09.2018 i.e. well within the window period of 6 months (i.e. before 5.10.2018) and also submitted Form-1 as required under S.O 1530(E) dated 6.04.2018 for the re-validation of EC under EIA 2006 (as amended).

- 4) PP also reported that general conditions are not applicable. The project does not fall in the Critically Polluted Area (**CPA**)/ Severally Polluted Area **SPA** as the area is not listed in the CEPI assessment by CPCB in 2018.
- 5) The project involves no forest land. The project does not fall within 10 KM of any Protected Area. The Committee observed that PP reported that the project does not involve approval/clearances under FC, Act 1980, WLP, Act 1972 and CRZ Notification 1991.
- 6) Initially the **Public hearing** was conducted on 07.12.2000 under the chairmanship of collector, Umaria. The advertisement for PH was published in Nav Bharat and Samay Samachar on 06.11.2000 and 08.11.2000. The Public Hearing was attended by nearby villagers/stakeholders and no written comments were received. The main issues raised during the PH involve the prevention of coal burning for domestic use by nearby populations. Further, in pursuant to OM dated 16.02.2021 and being a legacy case comments of the general public were sought through written submission and an advertisement for the same was issued in Raj Express and Times of India on 30.12.2023. However, no comments were received. The same was confirmed by RO MPPCB Shahdol vide letter dated 23.02.2024.
- 7) In pursuant to **OM dated 16.02.2021**, PP also submitted an undertaking dated 09.05.2024 wherein it has mentioned that there has been no change in mining namely mining method, mining plan, mineral transportation, water requirement, reclamation plan after obtaining EC for production capacity of 0.705 MTPA.
- 8) The Committee observed that **baseline data** was collected during Oct-22-Dec 2022 and the same is valid pursuant to the Ministry's O.M dated 8.06.2022. The Committee observed that values are within permissible limits as per standard [GSR 742(E) dated 25.09.2000] for core and buffer zone for coal mining.
- 9) During the meeting the Committee observed that **flora & fauna** study was conducted by CMPDI. The Committee is of the view that flora & fauna study and shall be carried out by an institution of relevant discipline and **wildlife conservation** plan shall be prepared and implemented in consultation with the state forest department. Further, PP should submit a timeline in this regard. This will also help the PP in carrying out their mine closer activities. PP vide letter dated 09.05.2024 submitted that the study of the existing Flora & Fauna & biodiversity in the study area and Wildlife Conservation Plan will be carried out by the institute of relevant discipline which will be completed by September 2024. The budget of the WLC plan shall be deposited to the State Forest Department.
- 10) PP submitted that the source water used is Ground Water and NoC for the same has been obtained from CGWA vide application no.

CGWA/NOC/MIN/ORIG/2021/12207 dated 2/07/2021 for the capacity of 1500.00 m³/day which was valid up to 1/7/2023. PP submitted that a renewal application was made and the amount was also deposited on 2/07/2023 and is under deemed renewal. The water requirement submitted by the PP is 740 KLD, out of which the Domestic water requirement is stated as 400 KLD and the Industrial water requirement is stated as 340 KLD. The Committee observed that there is no change in water requirements.

- 11) PP reported that the mine lease area is 350 Ha and the outside area is 69.33 Ha. Out of 69.33 of the total outside the mine lease area, 50.967 Ha of land is already acquired for residential colony and approach road. In the land use details submitted in Form-1, PP has provided the details of only 350 Ha and 50.967 Ha. The Committee is of the view that mining shall be restricted to only 350 Ha and PP shall submit an undertaking in this regard. PP vide letter dated 9.05.2024 submitted an undertaking wherein it has mentioned that mining shall be restricted to 350 Ha out of the total project area of 419.33 Ha.
- 12) The Committee observed that the **method of mining** operations envisages development by the Board & Pillar method with SDL & LHD and depillaring by a continuous miner.
- 13) Total geological reserve reported in the mine lease area was 18.08 MT as per PR having 16.07 MT mineable reserve. Extractable reserve as of 01.04.2024 is 1.223 MT, percentage of extraction is 75%-80% with CM.
- 14) 03 seams (namely JB, L-0, L-IB) with thickness ranging from JB- 1.5- 2.32 m, L-0- 2.0- 4.0m, L-IB- 3.0- 4.0 were workable. The grade of coal is C/D (G10), the stripping ratio is not applicable while the gradient is 1 in 13.
- 15) The Committee deliberated on the transportation of Coal. PP submitted that the coal is proposed to be transported from pit to surface bunker through the conveyor belt conveyor and from surface to sidings through trucks and tippers, from sidings to consumer, through railways and to local consumers by trucks. PP further submitted that there are no changes proposed in the means of transportation of Coal. The Committee is of the view that PP shall all mitigative measures including covered transportation, water spraying etc. while transporting the mineral.
- 16) The Committee deliberated on the life of the mine. PP reported that the expected remaining life of the mine is 3 years and took the leverage of 2 years to abide by the mine closure plan and has requested for grant of revalidation of EC for a further period of 5 years from the date of issuance of EC.

- 17)The Committee observed that mine is about to end and as reported is in the de-pillaring stage. The Committee asked about the **subsidence**. PP informed that the maximum subsidence observed was 1.5 meters. The Committee asked the PP to monitor it accordingly and take necessary measures. The Committee asked for the photographs of the same. PP showed the photographs and informed that they are filling the void created due to subsidence and over a period of time the subsidence will settle. The Committee asked about monitoring of the same. PP informed that regular monitoring of subsidence movement on the surface is being done by the square pillar and measuring the RL level and no measured impact on nearby water bodies vegetation/ structures/ surrounding is observed. All the cracks developed are regularly filled up with clayey soil and suitable material. PP further submitted the subsidence monitoring status report will be submitted to MOEF&CC, Bhopal in the next six monthly compliance reports. PP further submitted that the monitoring will be done even after the closure of mine for at least 2 years. PP reported that the expected remaining life of the mine is 3 years and took the leverage of 2 years in order to abide by the mine closure plan and has requested for grant of revalidation of EC for a further period of 5 years from the date of issuance of EC.
- 18)The Committee deliberated on the **plantation/ green** belt area of the project. The PP reported that the existing green belt has been developed in a 51.0 ha area which is about 12.16 % of the total project area of 419.33 ha with a total sapling of 1,27,500. PP submitted that Approx. 279.0 Ha land is taken into possession/having surface right for depillaring purposes and the plantation area comes to approx. 33% of surface right. PP proposed that 1,02,500 saplings in 41.0 Ha of land will be planted during the balanced life of the mine. Gap plantation will also be done. PP submitted an undertaking for the same. The committee asked for utilization of the remaining land in this regard PP submitted that they are planning to utilize the land for the purpose of installation of a Solar Power Plant and has submitted a plan for the same stating that 100 HA of land has been identified for installation of the solar plant at Vindhya UG Mine of SECL, Johilla Area. The total estimated cost to be incurred for ground-mounted solar panels will amount to Rs. 42 Cr approx. A 25 MW solar power plant will be established in 100 ha of identified land. The PP further submitted that such installation shall be completed by June 2026. The Committee is of the view that PP shall explore the possibility of extending the plantation on the remaining area of 138 Ha already acquired or using the same for the installation of the solar power plant.
- 19)The Committee deliberated on the Certified Compliance Report issued by the RO on 16.01.2024. The Committee observed that as per the report, there are some partially complied conditions for which PP has submitted an ATR also. The observation of RO was regarding the coal handling plant, coal storage, windbreaker, subsidence, rainwater harvesting structures, R&R, implementation of conservation measures, submission of final mine closure plan, submission of expenditure incurred

on environment protection measures, publishing of advertisement in the newspaper for EC. The PP submitted that:

- 1) *PP submitted that as suggested, the height of the wind-breaking wall will be enhanced by 1 meter above the highest coal stockpile stored at site by October-2024. A garland drain network with a siltation pond will be provided around the entire coal stock yard near the coal bunker by October 2024. The Committee suggested that the PP should make markings on the wall where the coal is stored in order to avoid the height of storage to exceed than what is actually allowed.*
- 2) *As regards the subsidence report, RO observed that monitoring of concrete square pillars posted is being undertaken by noting down the RL on quarterly basis. RO asked PP to submit the reports of subsidence and stage-wise development plan to the ministry at an interval of 5 years. PP agreed to do so on regular basis as per statutes along with the six monthly compliance report. The Committee observed that mine is about to end and as reported by is in de-pillaring stage. The Committee asked about the level of subsidence. PP informed that maximum subsidence observed was 1.5 meters. The Committee asked PP to monitor it accordingly and take necessary measures. The Committee asked for the photographs of the same. PP showed the photographs and informed that they are filling the void created due to subsidence and over a period of time the subsidence will settle. The Committee asked about monitoring of the same. PP informed that regular monitoring of subsidence movement on the surface is being done by square pillar and measuring the RL level and no measure impact on nearby water bodies vegetation/ structures/ surrounding is observed. All the cracks developed are regularly filled up with clayey soil and suitable material. PP further submitted the subsidence monitoring status report will be submitted to MOEF&CC, Bhopal in next six monthly compliance report. PP further submit that the monitoring will be done even after closure of mine for at least 2 years. PP reported that expected remaining life of mine is 3 years and took the leverage of 2 years in order to abide by the mine closure plan and has requested for grant of revalidation of EC for a period of 5 years from the date of issuance of EC.*
- 3) *The RO during the site visit observed that PP has constructed 2 rooftop rainwater harvesting structure to augment the groundwater resources in the area, However, as per EC condition, PP needs to formulate rainwater harvesting plan in consultation with CGWA and erect new recharge structures. PP submitted that new recharge structures will be constructed in consultation with the Regional Director, Central Ground Water Board. The Committee asked PP to submit the compliance of the same within next six months.*
- 4) *The RO observed that PP has paid the compensation as per CIL R&R Policy and out of 362 PAPs, 356 PAPs have been compensated and remaining 6 which have not yet received the compensation is due their family dispute. The PP has*

deposited the amount to be paid to them with the tribunal and the same will be settled after resolution of their family dispute/ court case. The Committee observed that PP has already deposited the amount with Hon'ble Tribunal.

5) *The RO, during the visit observed that the required plan was prepared in consultation of the authorised department and was also incorporated in EIA/ EMP report, which was submitted to MoEF&CC to obtain EC. However, the detailed compliance w.r.t implementation of the conservation measures being practiced in consultation with forest officials needs to be submitted. PP submitted that the protective measures for restoration and rehabilitation of flora and fauna in the study area will be identified in consultation with forest department and execution of works will be done accordingly under the supervision of state forest department by July-2024. The Committee is of the view that in addition to execution by July 2024 the PP shall also prepare a fresh plan for the same as the mine is about to close.*

6) *Concerning to submission of the mine closure plan, expenditure incurred on environment protection measures and publication of advertisement. The PP agreed to the same but the Committee is of the view that these are just basic requirements and PP shall establish an Environment Management Cell to monitor the implementation of compliance with EC conditions, record keeping and regular submission of six monthly reports.*

20) The Committee deliberated on the EIA/ EMP. The Committee observed that there are some typo errors in EMP Cost. PP confirmed that EMP cost is 92.42 Lakh (Capital) and Rs 352.35 Lakh (recurring). Further, the existing capital cost of the project was Rs. 69.7025 Crores. PP reported that the total manpower requirement is 706 and as of April 1, 2023, Vindhya UG has 677 employees.

21) The Committee observed that PP reported that there is no legal issue/violation w.r.t i) Environment (Protection) Act, ii) Air(P&CP) Act, Water (P&CP), Act, Forest Conservation Act, Wildlife Protection Act, CRZ Notification, MMDR Act, Factories Act. Further, there is no court case on the project. The PP further submitted an undertaking in this regard.

22) Coal linkage of the project is proposed for Basket linkage for TPS & miscellaneous customers.

23) No Joint venture cartel has been formed.

*Based on the discussion held and the documents submitted by the PP, the EAC has **recommended** the proposal for Revalidation of EC dated 18.02.2005 to Vindhya Underground Mine, located at villages – Dagdauwa and Mahura, Tehsil – Nowrozabad, District – Umaria, State – Madhya Pradesh (ML Area 350 Ha, capacity 0.705 MTPA), by South Eastern Coal Field Ltd. as per provision of S.O 1530(E) dated 6.04.2018, under EIA*

Notification, 2006 (as amended) subject to the compliance of the following specific conditions in addition to the conditions granted in the earlier EC and Standard EC conditions.

Specific Conditions:

- 1) PP shall speed up Plantation and Green Belt development activities on 41.0 Ha and gap plantation on 51 Ha so as to achieve the targets within the next 5 years. The green belt and plantation plan submitted in the EIA/EMP shall be implemented in a time-bound manner. A survival rate of at least 80% shall be maintained by carrying out gap plantation in case of mortality. The budget earmarked for the plantation shall be kept in a separate account. PP should annually submit the audited statement of expenditure along with proof of activities viz. photographs (before & after with geolocation date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC and on PARIVESH Portal as the case may be for the activities carried out during previous year.*
- 2) PP shall complete the installation of 25 MW Solar Power Plant over an area of 100 Ha by June 2026 and budget earmarked for the same is Rs 42 Cr approx.. shall be kept in a separate account. PP should annually submit the audited statement of expenditure along with proof of activities viz. photographs (before & after with geolocation date & time) of the progress made in this regard to the Regional Office of MoEF&CC and on PARIVESH Portal as the case may be for the activities carried out during previous year.*
- 3) As the mine is in closure stage PP shall explore the possibility of further plantation of the remaining area 138 Ha which has already acquired for subsidence or use the same for the further expanding the capacity of Solar Power Plant. An action plan along with budgetary provisions and timeline for implementation shall be submitted within 6 months to Regional Office of MoEF&CC.*
- 4) The plantations done by the PP need to be adequately densified and audited by a third party preferably a forestry institution of MoEF&CC (e.g. ICFRE) to assess their efficacy.*
- 5) PP shall monitor the subsidence and take necessary measures/steps for filling the subsidence area as per subsidence plan.*
- 6) PP shall provide regular health monitoring services and health services free of cost to people living in 10 km radius.*
- 7) PP shall implement the protective measure proposed in EMP in a time-bound manner. The budget earmarked for the same is Rs 94.24 lakhs (Capital) and Rs 352.35 Lakh (recurring) and should be kept in separate accounts and audited*

annually. The implantation status along with the amount spent with documentary proof shall be submitted to the concerned Regional Office for the activities carried out during the previous year.

- 8) All the mitigation measures committed / envisaged in the EIA/EMP report and subsequent submission shall be implemented. PP should annually submit the audited statement along with proof of activities carried to the Regional Office of MoEF&CC and PARIVESH Portal as the case may be for the activities carried out during previous year.
- 9) PP should establish an Environment Management Cell at its mines in order to make sure that all the compliances related to environment are being complied efficiently. PP should conduct the monthly review meeting with the environment management cell shall be carried out at mine level and quarterly at with environment management committee of the company. The record of the same shall be maintained.
- 10) Protective measures for restoration and rehabilitation of flora and fauna in the study area will be identified in consultation with forest department and execution of works will be done accordingly under the supervision of state forest department by July-2024.
- 11) As the mine is about to close a study of the existing Flora & Fauna & biodiversity (in the study area) and Wildlife Conservation Plan shall be carried out by the institute of relevant discipline by September 2024. Budget of the WLC plan shall be deposited to State Forest Department.
- 12) PP shall ensure submission of the compliance report to the Regional Office in a timely manner and in case of any non-compliance identified so far/in future in the CCR then the same shall be complied with on priority and action taken report in this regard shall be submitted to concerned RO and get it closed.
- 13) PP shall ensure that all types of plastic waste generated from the mines shall be stored separately in isolated areas and disposed of strictly adhering to the Plastic Waste Management Rules 2016. In pursuant to the Ministry's OM dated 18/07/2022, PP shall also create awareness among the people working in the project area as well as in its surrounding area on the ban on Single Use Plastic(SUP) in order to ensure compliance of the Ministry's Notification published by the Ministry on 12/08/2021. A report along with the photographs of the measures taken shall also be included in the six monthly compliance reports being submitted by PP.
- 14) NoC from Central Ground Water Authority (CGWA)/ concerned local authority, as the case may be, shall be obtained before drawing the groundwater for the project activities, state pollution control board/pollution control committees shall not issue the consent to operate (CTO) under Air (prevention and control of Pollution) Act and

Water (Air (prevention and control of Pollution) Act till the project proponent shall obtain such permission.

- 15) *PP shall carry out the mine closure activities as per approved mine closure plan and progress made shall be reported to Regional Office of MoEF&CC in six monthly report.*
- 16) *PP should make markings on the wall where the coal is stored in order to avoid the height of storage to exceed than what is actually allowed.*
- 17) *New recharge structures will be constructed in consultation with the Regional Director, Central Ground Water Board and compliance of the same shall be submitted within next six months.*
- 18) *All other conditions stipulated in EC dated 18.02.2005 shall remain the same.*

Agenda No. 11.6

Proposal for grant of Terms of Reference (ToR) of Ghala Lignite Mine (Surat Lignite Field) (ML Area 1600 Ha, rated capacity of 1.0 MTPA) of Gujarat Mineral Development Corporation Ltd, located at Villages: Baudhan, Ghala, Munjlav, Rosvad & Tadkeshvar Taluka: Kamrej & Mandvi District: Surat State: Gujarat for conducting studies for Environmental Clearance (EC) of the allotted coal block. – Terms of Reference – Regarding.

[Proposal No. IA/GJ/CMIN/465778/2024; File No. IA-J11015/27/2024-IA-II(M)]

[Consultant: GRRC India (P) Limited; NABET/EIA/2124/RA 0213, Valid till 15/08/2024]

11.6.1: Gujarat Mineral Development Corporation Limited has made ToR application vide online proposal No. IA/GJ/CMIN/465778/2024 dated 19/04/2024 in Form-I and also submitted a copy of Pre-Feasibility Report (PFR) for undertaking detailed EIA study as per the EIA Notification, 2006 (as amended) for Ghala Lignite Mine (Surat Lignite Field), having production capacity 1.0 MTPA in an ML area of 1600 Ha, located at Villages: Baudhan, Ghala, Munjlav, Rosvad & Tadkeshvar Taluka: Kamrej & Mandvi District: Surat State: Gujarat. The proposed project activity is listed at S. No. 1(a) Under Category “A” (> 500 Ha) of the schedule of the EIA Notification, 2006 and appraised at Central Level.

11.6.2: Details of the proposal, as ascertained from the proposal documents and as revealed from the discussion held during the meeting, are given as under:

11.6.2.1: Location:

- i) The project area is covered under Survey of India Topo Sheet No. F43-N2 and is bounded by the geographical coordinates ranging from 21°17'36.0312" N - 21°20'32.0985" N and longitudes 73°02'26.4265" E - 73°05'17.1846" E.
- ii) PP reported that project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC vide its OM dated 13th January, 2010 has imposed moratorium on grant of Environment Clearance.

11.6.2.2: Forest Area: PP submitted that the project does not involve forest land.

11.6.2.3: Protected Area: PP reported that the project is not located within 10 KM of any ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/tiger corridor/elephant corridor etc. Project does not have any Violation of WLP, Act. No wild life issues involved, however conservation plan for Schedule -I species with approval shall be submitted with EIA.

11.6.2.4: Mining Lease: Ghala Lignite Block, in Taluka Kamrej district Surat comprising an area of 1600 ha has been reserved under subsection (2) of 17A of Mines and Minerals (Development and Regulation) Act 1957 with prior approval of the Central Government by Industries and Mines Department, Government of Gujarat vide their letter no. GUJ-2017-23-MCR-102015-406-CHH-1 dated 3rd July 2017 to GMDC. The State Government vide letter no. MCR/102020/56/CHH1 dated 16/03/2024 issued order regarding mine lease (1600 Ha) in favor of GMDC.

11.6.2.5: Mining Plan: PP submitted that the mining plan & mine closure plan for the project was approved for capacity 1 MTPA in an Area 1600 Ha area vide letter no. GJGU021/APP00278/2023 dated 18.03.2024 by Ministry of Coal, Gol.

11.6.2.6: Method of Mining: The PP has submitted the following:

- i) Method of Mining to be adopted shall be Opencast. The Capacity of the mine applied for Normative capacity peak capacity as per approved mining plan is 1 MTPA. Excavation of Coal is through shovel/dumper combination. The waste/OB handling is with shovel/dumper combination.
- ii) Total geological reserve reported in the mine lease area is 36.280 MT(Net) with 26.83 MT mineable reserve. Out of total mineable reserve of 26.83MT, 26.16 MT are available for extraction. Percent of extraction is 72.1060%.
- iii) 13 seams with thickness ranging from 0.1m – 31.86m are workable. Grade of coal is GL-3 GCV (3472 Kcal/kg), stripping ratio 12.5150m³/T max while gradient is 1° to 5°.

- iv) Life of mine is 31 years.
- v) The project has no external OB dumps. Internal OB in an area of 642.73ha with 327.18Mm³ of OB is envisaged in the project. Total quarry area is 642.73 ha out of which backfilling will be done in 642.73ha. No mine void will be created in an ML area. Backfilled quarry area of 642.73 ha shall be converted to plantation and agriculture land.
- vi) **Details of Land usage**

iii. Pre-mining Land Use

S.No	Land Type	Existing/pre-Mining Use	Area (Ha.)
1	Tenancy	Agricultural Land	720.21
2	Tenancy	Road	2.2
3	Tenancy	Others	51.82
4	Government Non Forest	Agricultural Land	162
5	Government Non Forest	Township/Residential	42
6	Government Non Forest	Barren Land	85
7	Government Non Forest	Water Bodies	42
8	Government Non Forest	Road	36.65
9	Free Hold	Free Hold	458.12
Total			1600

iv. Post-Mining Land Use

Type	Land Use(proposed)	Land Use(End of Life)	Land Use (Post Closure)					
			Agricultural land	Plantation	Water Body	Public/Community Use	Undisturbed	Total

Excavation Area	642.73		149.18	493.55				
Backfilled Area		642.73						642.73
Safety Zone	12.94	12.94		12.94				12.94
Haul Road between quarries	11.28	11.28				11.28		11.28
Diversion of Canal	12.53	12.53			12.53			12.53
Settling Pond	0.20	0.20			0.20			0.20
Road and Infrastructure Area	20.25	20.25		20.12		0.13		20.25
Garland Drains	1.82	1.82			1.82			1.82
Green Belt	0.10	0.10		0.10				0.10
Water Reservoir Near Pit	0.06	0.06			0.06			0.06
Undisturbed or Mining Right for UG	898.09	898.09					898.09	898.09
TOTAL	1600	1600						1600

vii) Details of transportation of Coal: Removal and transportation of Overburden waste material will be done through 3.1-6 Cum Shovel in conjunction with 35-60 T RDT. Lignite transportation from this mine will be done through road.

viii) PP reported that there are 4 no of villages within the mining lease area. Out of which

no of villages has been shifted.

- ix) **Reclamation:** PP submitted that the reclamation plan includes afforestation shall be done progressively covering an area of: 526.71ha at the end of mining. This includes Internal dump (in Ha)-493.55 Safety zone in 12.94 ha, road and infrastructure in 20.25 ha & Green belt (in Ha)- 0.1 Ha. Density of tree plantation (in no of plants): 2500 plants/ Ha. No Void is proposed to be converted into water body.

11.6.2.7: Baseline Studies: PP reported that the baseline study period is March-May 2024, the data collection is under process and shall be provided in the EIA.

11.6.2.8: Water Requirement: Water demand of the project is 610 KLD.

11.6.2.9: Solid and Hazardous Waste Generation: PP submitted that Spent oil/used cotton generated will be properly stored and disposed-off suitably as per the Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016.

11.6.2.10: R&R Plan: PP submitted that numbers of affected villages are 4 in numbers. 2943 families and 13974 peoples are likely to be affected by this project. R &R Plan preparation is under progress and implementation will be done as per the approved R& R Plan.

11.6.2.11: Project Cost: PP submitted that the total project cost is Rs. 2567.82 Crores and about 400 people on daily wages basis will get employment during the construction stage. Total 300 persons will be employed during operational phase, in the skilled, semi-skilled and unskilled category.

11.6.2.12: Legal Issues/ Violation: PP reported that there is no legal issue/violation wr.t i) Environment (Protection) Act, ii) Air(P&CP) Act, Water (P&CP), Act, Forest Conservation Act, Wildlife Protection Act, CRZ Notification, MMDR Act, Factories Act. Further, there is no court case on the project.

11.6.3 Observation and deliberation of the EAC:

The PP and NABET Accredited consultant made detailed presentation and Committee deliberated on the various aspects of the project. The observations of EAC are as follows:

1. The proposal of GMDC is for grant of Terms of Reference (ToR) for production of 1.0 MTPA Lignite from Ghala Lignite Mine, (Surat Lignite Field) in ML Area of 1600 Ha. located at Villages: Baudhan, Ghala, Munjlav, Rosvad & Tadkeshvar Taluka: Kamrej & Mandvi District: Surat State: Gujarat.
2. The State Government vide letter no. MCR/102020/56/CHH1 dated 16/03/2024 issued order regarding mine lease (1600 Ha) in favor of GMDC.
3. PP reported that General Condition is not applicable for the project and project does

not fall in the Critically Polluted Area (CPA), where the MoEF&CC vide its OM dated 13th January, 2010 has imposed moratorium on grant of Environment Clearance. Further, the project does not come under SPA as per CEPI assessment done by CPCB in 2018.

4. PP submitted that the project does not involve forest land.
5. PP reported that the project is not located within 10 KM of any ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve/tiger corridor/elephant corridor etc. Project does not have any Violation of WLP, Act. No wild life issues involved, however conservation plan for Schedule -I species with approval shall be submitted with EIA.
6. PP submitted that the mining plan & mine closure plan for the project was approved for capacity 1 MTPA in an Area 1600 Ha area vide letter no. GJGU021/APP00278/2023 dated 18.03.2024 by Ministry of Coal, Gol.
7. PP submitted that the method of mining will be Opencast with shovel/dumper combination. There will be no drilling and blasting involved. The total minable reserves are 26.83MT of which 26.16 MT are available for extraction. The life of mine is 31 years. The project has no external OB dumps. Internal OB in an area of 642.73ha with 327.18Mm³ of OB is envisaged in the project. Total quarry area is 642.73 ha out of which backfilling will be done in 642.73ha. No mine void will be created in an ML area. Backfilled quarry area of 642.73 ha shall be converted to plantation and agriculture land. The Committee asked the PP whether the entire area will be mined as there is a road in the SW corner of the lease boundary. PP submitted that road will not be diverted and area in the south of the proposed quarry has not been proposed to be liquidated due to high stripping ratio. In future with improvement in technology and favorable market conditions attempts shall be made to liquidate the balance reserves also. One such reassessment shall be done not later than twenty years of mine opening. The lease validity is up to 50 years.
8. The committee observed that Tapi River is passing on the southern part of the Block at a distance of 1.5 km. However, Kakrapar Right Bank Canal is passing through the northern part of ML area. PP submitted that this canal will be diverted for extracting mineral. The diversion is proposed along the northern boundary of the Mining block after getting approval from concerned department.
9. The Committee observed that water demand reported by PP is of the project is 610 KLD. But in the form-1 it has mentioned that during the construction phase the water requirement will be 160 KLD and same may be sourced from borewell and during the operation phase the water requirement will be 610 KLD same will be sourced from tankers. In addition to this PP also submitted that ground water will be intersected during the mining operation and water accumulated within the active mining pit besides storm water will be the source of water. Accumulated mine pit water during the active mining period will be pumped. The Committee is of the view that PP shall

use the water from a legal source (borewell/tanker) for which the provider should have a valid permission from the concerned Authority. Further, PP shall obtain necessary permission from CGWA. Additionally, if the water is used from tankers then impact of the same shall also be considered while air quality modelling.

10. The Committee observed that in pursuant to Ministry's OM dated 08.06.2022 the PP has started collecting Baseline data.
11. EAC after detailed deliberation, under the provision of EIA Notification 2006 and as amended, recommended the proposal for grant of Standard Terms of Reference (ToR), as applicable to the project, with detailed Public Consultation (Public Hearing and Written submission) and following Specific ToR to M/s Gujarat Mineral Development Corporation Ltd for preparation of EIA/EMP report for Ghala Lignite Mine (ML Area 1600 Ha, rated capacity of 1.0 MTPA), located in District Surat, Gujarat:

Specific ToR:

- 1) *PP has to prepare the EIA-EMP report based on the valid baseline data and thereafter conduct the Public Consultation (including public hearing), through concerned SPCB in the concerned districts as per the provisions/procedure contained in the EIA Notification, 2006 (as amended) and OM issued by MoEF&CC in this regard.*
- 2) *PP shall submit the EIA/EMP report after the plagiarism check using authenticated plagiarism software.*
- 3) *Plot the wind rose diagram using the typical meteorological year (TMY) data for the period considered for the study. The monitoring units shall be deployed in the field based on the coverage area ratio and direction of the wind. A mathematical model shall be developed for the local site rather than using the standard model available in software for both air & water quality modelling.*
- 4) *PP shall prepare the mining plan in such a way that it should provide the details of diversion of canal/nallah/roads etc. involved in this project in the same. Further, no mining activities (except transportation) including OB dumping shall take place outside the lease area. Further, the total excavation (minerals, waste, top soil) to be excavated needs to bring out clearly in production and development plan. The mineable reserves, blocked reserves need to be mentioned along with life of mine. PP should add an annexure in the mining plan clearly showing the year-wise production and development plan (tabular format) till the end of life of mine. The location of mineral stacking, dumping sites, plantation and other infrastructures needs to bring out clearly in the mining plan. PP needs to bring out the waste to be*

generated during the entire life of mine and where it will be dumped/backfilled.

- 5) Scientific study shall be conducted to ascertain impact of mining on the Tapi River and precautions to be taken to ensure safety against the Tapi River. The study should address the impact of mining on Tapi River Detailed Precautions as per the findings of the study shall be implemented and made part of the EMP. Further, as the project lies in the vicinity of Tapi river. The study shall be carried out by some Government Institute.*
- 6) As the project involve ground water intersection a Hydrological study shall be carried out by some Government Institute. Further, PP shall comply with Ministry's OM dated 23.05.2019 and provide necessary details/studies in EIA/EMP Report.*
- 7) PP shall carry out a detailed study and prepare a diversion plan (canal/nallha/road etc.), if any, including the impact of such diversion on environment and local community from a reputed government institute along with cost benefit analysis.*
- 8) PP shall submit the drone video & photographs of mined area, fresh lease area to be mined and existing and proposed transportation route.*
- 9) PP should submit the detailed plan in tabular format (year-wise for life of mine) for afforestation and green belt development in and around the mining lease. The PP should submit the number of saplings to be planted, area to be covered under afforestation & green belt, location of plantation, target for survival rate and budget earmarked for the afforestation & green belt development. In addition to this PP should show on a surface plan (5-year interval for life of mine) of suitable scale the area to be covered under afforestation & green belt clearly mentioning the latitude and longitude of the area to be covered during each 5 years. The capital and recurring expenditure to be incurred needs to be submitted. Plantation plan should be prepared in such a way that 80% of the plantation to be carried out in first 5 years and for the remaining years the proposal for gap filling. The seedling of height not less than 2 meters to be selected and accordingly cost of plantation needs to be decided. In addition to this, plantation in the safety zone at lease boundary the plantation should be planned in such a way that it should be completed within 2 years only.*
- 10) PP should submit the quantity of surface or ground water to be used for this project. The complete water balance cycle need to be submitted. In addition to this PP should submit a detailed plan for rain water harvesting measures to be taken. The PP should submit the year wise target for reduction in consumption of the ground/surface water by developing alternative source of water through rain water harvesting measures.*

The capital and recurring expenditure to be incurred needs to be submitted.

- 11) PP should clearly bring out the details of the manpower to be engaged for this project with their roles /responsibilities/designations. In addition to this PP should mention the number and designation of person to be engaged under Environment Management Cell for implementation of environmental management plan (EMP). The capital and recurring expenditure to be incurred needs to be submitted.*
- 12) PP should submit the year-wise, activity wise and time bound budget earmarked for EMP, occupational health surveillance, and activities proposed to address the issues raised during Public Hearing. The capital and recurring expenditure to be incurred needs to be submitted.*
- 13) PP should clearly bring out that what is the specific diesel consumption ~ (Liters/Tonne of total excavation & mineral) and steps to be taken for reduction of the same. Year-wise target for reduction in the specific diesel consumption needs to be submitted. PP shall also explore the possibility of using e-vehicles/LNG/CNG based mining machineries and trucks for mining operation and transportation of coal.*
- 14) All the certificates viz. Involvement of Forest land, distance from protected area, list of flora & fauna should be duly authenticated by Forest Department. The Certificate should bear the name, designation, official seal of the person signing the certificate and dispatch number.*
- 15) PP should clearly show the transport route of the mineral and protection and mitigative measure to be adopted while transportation of the mineral. The impact from the center line of the road on either side should be clearly brought out supported with the line source modelling and isopleth. Further, frequency of testing of Poly Achromatic Hydrocarbon needs to be submitted along with budget. Based on the above study the compensation to be paid in the event of damage to the crop and land on the either side of the road needs to be mentioned. The PP should provide the source of equations used and complete calculations for computing the emission rate from the various sources. The Ground level concentration of various pollutants in worst case and control case scenario needs to be submitted. The cumulative impact of other activities needs to be considered in EIA/EMP Report.*
- 16) To support the transportation road, PP shall carry out the traffic study for one month along with the mitigation measures to control air pollution.*
- 17) PP shall submit the action plan to adhere the Plastic Waste Management Rules 2016 and to adhere Ministry's OM dated 18/07/2022.*

- 18) *PP shall submit design details of all Air Pollution control equipment (APCEs) to be implemented as part of Environment Management Plan vis-à-vis reduction in concentration of emission for each APCEs.*
- 19) *The PP should ensure that only NABET accredited consultant shall be engaged for the preparation of EIA/EMP Reports. PP shall ensure that accreditation of consultant shall be valid during the collection of baseline data, preparation of EIA/EMP report and during the appraisal process. The PP and consultant should submit an undertaking the information and data provided in the EIA Report and submitted to the Ministry are factually correct and PP and consultant are fully accountable for the same.*
- 20) *The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.*
- 21) *As per the Ministry's OM dated 30.09.2020, to address the concern raised during the Public consultation including the public hearing, the Project Proponent is required to submit the detailed activities proposed with year-wise budgetary provisions (Capital and recurring). Activities proposed shall be part of EMP.*
- 22) *Details on renewable energy proposed to be installed as energy conservation measures shall be submitted.*
- 23) *PP shall align its activities to one/few of the Sustainable Development Goals (SDG) and start working on the mission of net zero by 2050. PPs shall update the same to the EAC.*
- 24) *PP should provide in the EIA Report details of the statutory clearances, permissions, no objection certificates, consents etc. required for this project under various Acts, Rules and regulations and their status or estimated timeline after the grant of EC.*
- 25) *The budget to be earmarked for the various activities shall be decided after perusal of the Standard EC Conditions published by the Ministry.*
- 26) *PP shall obtain the list of Schedule-I species from the concerned forest department and prepare a detailed Wild Life Conservation plan for the same. PP shall ensure that a conservation plan shall be prepared and approved by the CWLW.*

27) PP shall provide the GLC with control and without control scenario by considering all the activities/sources of air pollution including water tanker.

28) PP shall provide the necessary permission obtained by the service provider who will supply water.

Agenda No. 11.7

Proposal for Amendment in Environment Clearance (EC) of Bina Extn Project, located in District Sonebhadra of State Uttar Pradesh and District Singrauli of Madhya Pradesh (ML Area 1790.377 Ha, capacity 10.5 MTPA), by Northern Coalfields Limited – Regarding Amendment in EC

[Online Proposal No. IA/UP/CMIN/468550/2024; File No. J11015/49/2011-IA-II(M)]

[Consultant: CMPDIL; NABET/EIA/2124/RA 0258 valid till 22.08.2024]

11.7.1 The proposal is for amendment in Environment Clearance dated 29.07.2022 for Bina Extension Project with production capacity of 10.5 MTPA in ML Area of 1790.377 Ha of Northern Coalfields Limited located in District Sonebhadra of State Uttar Pradesh and District Singrauli of Madhya Pradesh

11.7.2 Earlier the Environment clearance for the project was granted under EIA Notification, 2006 vide Ministry’s letter no. J-11015/49/2011-IA II (M) dated 29.07.2022 for a capacity of 10.5 MTPA in an area of 1798 Ha. Thereafter PP obtained the amendment of EC for extension of validity and reduction in area to 1790.377 Ha for a capacity of 10.5 MTPA, vide EC dated 06.03.2024.

11.7.3 The PP now has made an application vide proposal no. IA/UP/CMIN/468550/2024 dated 20/04/2024 on PARIVESH portal under Form-4, to amend the specific condition no.’s 4(iv), 4(viii), 4(ix), 4(xxii) and 4(xxv) of the EC letter dated 29.07.2022. PP has submitted the application seeking following amendments along with justification:

Ref No	EC Conditions	Amendment required	Justification
4 (iv)	Mining shall be carried out only by surface miners for the project (as proposed) and silo loading till railway siding through in-pit	Mining shall be carried out only by surface miners for additional production of coal (as	Mining is being carried out using shovel dumper combination and surface miners at Bina Extn. Project. There are 3 working seams at Bina Project namely Purewa Top, Purewa Bottom and Turra. Turra seam is the bottom most seam. Presently, two nos. of surface miners are deployed in Purewa top

	conveyor should be installed to avoid road. No road transportation shall be conducted.	proposed) and silo loading till railway siding Through in-pit conveyor should be installed to avoid road.	and Purewa bottom seam for extraction of coal. In addition to this, one more Surface Miner will be deployed by the end of June 2024. Deployment of Surface miner at Turra coal seam is not feasible from safety point of view due to presence of spoil heap on one side and Highwall on other side along with deployment of dragline. Therefore, coal from Turra seam is being extracted through shovel dumper combination only. The coal extracted from Surface Miner is completely transported through rail mode. Further, coal extracted from Turra seam is partly transported in railway rakes through RLS/Silo loading with the existing CHP of 4.5 MTPA. A small part of coal is being transported through road mode to small consumers having no rail infrastructure. Therefore, this condition may kindly be considered for amendment as proposed.
4(viii)	PP shall plant 200 ha of Sal trees(only) and 200 ha of fruit bearing trees and create a nursery of 10 ha (within 2 years) to distribute the species freely in the region for redevelopment of Sal forest in the region	PP shall plant 200 ha of native species/fruit bearing trees and create a nursery of 1 ha to distribute the species freely in the region for redevelopment of forest in the region	In this regard, DFO Singrauli and DFO Renukoot were approached for Sal plantation. However, vide letter dated 14.08.2023, DFO Singrauli conveyed inability to carry out Sal Plantation and Sal nursery development work due to poor survival rate of saplings. DFO, Renukoot also didn't accepted the request for Sal plantation in mine area. Therefore, this condition may kindly be considered for amendment as proposed.

4(xi)	PP shall install sand segregation plant for suitable capacity to extract sand and construction aggregate within 2 years of issue of this letter.	This condition may be considered for exemption.	1 no. sand segregation plant was commissioned at Amlohri Open Cast Project of NCL at a cost of Rs.14.0 Crore (approx). However, the plant is currently non-operational due to lack of demand of M-sand. Construction of another sand segregation plant in the region will further lead to idling of infrastructure. Therefore, this condition may kindly be considered for exemption as proposed.
4(xxii)	PP should conduct epidemiology study to analysis of the distribution, patterns and determinants of health and disease conditions in defined population.	This condition may be considered for exemption.	<p>Following Institutes of National reposes (in the field of epidemiology) were requested for carrying out the study:</p> <ol style="list-style-type: none"> 1. ICMR Chennai 2. All India Institute of Hygiene and Public Health, Kolkata(AIIHPH) 3. Institute of Environment and Sustainable Development, BHU Varanasi <p>AIIHPH have expressed inability to take up the study. ICMR Chennai has been non-responsive. A letter was also communicated to Institute of Environment and Sustainable Development, BHU Varanasi on 20.05.2023 for carrying out the study. After which they demanded scope of work via email dated 11.06.2023. The detailed scope of work was prepared and sent to BHU Varanasi on 31.08.2023 after which several repeated request letters have been sent to the institute. The Institute was also requested telephonically and by personal meetings. However, no budgetary offer has been received till date. Therefore, this condition may kindly be considered for exemption as proposed</p>

4(xxv)	PP shall Construct new multi-specialty (100 beds) hospital in the 10 km of the project area within 2 years for local people after issue of this letter.	This condition may be considered for exemption	PP submitted that two hospitals namely Atal Chikitshalaya- NCL (At Bina) with 20 beds capacity and UP State Government hospital Dibulganj (within 10 Km), which is renovated in Oct 2023 by Bina Extn. Project at a cost of Rs 406.68 lakhs with 50 bed capacity already exist. PP further submitted that the average annual bed occupancy of both the hospitals is less than 25%. Therefore, the facility of above two 70 bedded hospitals available nearby is serving the needs of the local people effectively. In addition to the above, NCL has fully operational 198 bedded hospitals namely Nehru Shatabdi Hospital (15 km from Bina) to cater the needs of both employees and nearby local people. Therefore, this condition may kindly be considered for exemption as proposed.
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11.7.4 Deliberation by the EAC in the meeting:

PP along with NABET Accredited consultant made a detailed presentation on EC conditions require amendments along with its justification. The Committee deliberated on various aspects of the proposal submitted and the presented made by PP. After detailed deliberation Committee observed the following:

1. PP has submitted the proposal for amendment in 5 specific conditions of EC dated 29.07.2022
2. As regards Specific condition no. 4(iv) regarding carrying out mining only by surface miner and no road transportation PP submitted that Mining is being carried out using shovel dumper combination and surface miners at Bina Extn. Project. For Shallow seams two nos. of surface miners are deployed for extraction of coal. Deployment of Surface miner at bottom most Turra coal seam is not feasible from safety point of view due to presence of spoil heap on one side and High wall on other side along with deployment of dragline. Therefore, coal from Turra seam is being extracted through shovel dumper combination only. The coal extracted from Surface Miner is completely transported through rail mode. Further, coal extracted from Turra seam is partly transported in railway rakes through RLS/Silo loading with the existing CHP of 4.5 MTPA and a small part of coal is being transported through road mode to small

consumers having no rail infrastructure. The Committee is of the view that further justification may be submitted by the PP for use of Surface miner. PP vide email dated submitted the letter dated 12.05.2024 submitted the detailed justification. PP informed to the committee that while granting EC dated 29.07.2022 for increase in capacity by 3 MTPA (from 7.5 to 10.5 MTPA) condition for mining with surface miner was stipulated. PP informed that excavation of coal is through three seams, bottom seam is Turra seam wherein is not feasible to carry out the mining through surface miner only of following reasons.

- i. Mining with surface miner no blasting is involved therefore solid coal rib will be formed against the spoil heap which is not desirable from safety point of view due to chances of rib failure triggering inrush of spoil heap into active workings.*
- ii. Dragline which is deployed for excavation of overburden material above bottom most Turra seam and dumps the same into previous cut void. The machine is electrically operated and doesn't require any transportation equipment (like dumpers) to remove the excavated OB. Therefore, not only the machine, but the entire dragline operation is eco-friendly. For continuous and uninterrupted operation of dragline, high-capacity shovel dumper combination needs to be put in place in Turra coal seam exposed by Dragline. This is required for synchronized and rapid extraction of the exposed Turra coal, so as to eliminate idling of Dragline at a later stage due to non-availability of void. This is one of the prime reasons for non-preference of surface miner in combination with dragline for extraction of coal from bottom most Turra coal seam.*
- iii. At working near the high wall, shovel is deployed perpendicular to the coal face and if required, it can pull down loose boulder/ coal lumps, which may get dislodged during the operation Whereas, such tasks cannot be performed by a surface miner.*
- iv. Extraction of OB bench just above Turra seam is synchronized with Shovel-Dumper methodology for rapid extraction of exposed Turra coal. The above methodology is incorporated in approved mining plan and is well adopted in other opencast mines of NCL also.*
- v. Being the bottom most seam, there is continuous seepage and accumulation of water in Turra seam which is not suitable for surface miner operation.*

EAC deliberated on the PP submission regarding mining constrained in bottom seam by Surface miner only. EAC further noted that Shovel-Dumper methodology is incorporated in approved mining plan and is well adopted in other opencast mines of NCL also. EAC after detailed deliberation recommended for excavation of coal by shovel dumper combination in Turra seam only. Further request regarding transportation of coal through road cannot be considered with the limited information submitted. PP is required to furnish information on the quantum of coal required to be transported through road, details of end users, detail on transportation route, number of trippers etc for further consideration by the EAC.

3. In respect of Specific Condition no. 4(viii) regarding 200 ha of Sal trees(only) PP submitted that Plantation in NCL projects is carried out by State Forest Departments of M.P & U.P. and DFO Singrauli and DFO Renukoot were approached for Sal plantation. However, DFO Singrauli and DFO, Renukoot both conveyed inability to carry out Sal Plantation in mine area and Sal nursery development work due to poor survival rate of saplings.

The Committee deliberated on the PP request for an amendment in above mentioned specific condition and advised PP to explore feasibility of SAL plantation, estimate survival rate, approach TFRI Jabalpur or any other institute of MoEF&CC (ICFRE) for guidance and undertaking this plantation.

4. Specific condition 4(xi) stipulates that PP shall install sand segregation plant for suitable capacity to extract sand and construction aggregate within 2 years of issue of this letter. In this regard, PP submitted that 1 no. sand segregation plant was commissioned at Amlohri Open Cast Project of NCL at a cost of Rs.14.0 Crore (approx.) in the region. However, the plant is currently non-operational due to lack of demand for M-sand. Construction of another sand segregation plant in the region will further lead to idling of infrastructure.

The Committee is of the view that PP should also approach state PWD for quality check and use of sand. Based on the comments from PWD department, amendment may be re-considered.

5. As regards, Specific condition no. 4(xxii) regarding conduct of epidemiology study to analyse the distribution, patterns and determinants of health and disease conditions in defined population., PP submitted that Institutes of National repute like ICMR Chennai, AIIPH Kolkata and BHU Varanasi had been contacted for the study but they have expressed their inability to take up the study.

The Committee asked PP to approach AIIMS, ICMR, State Public Health Department, Government/Autonomous Health Research institutes etc and award the work in project mode. Deletion of this condition may not be considered as epidemiology study (Health profile in a defined population) is significant to understand and to adopt preventive measures for occurrence, and distribution of disease in a defined population around the mining area. Therefore, PP is required to put all efforts to get the study done and submit the study report to Region Office, MoEF&CC and on PARIVESH portal.

6. As per Specific Condition No. 4(xxv) PP shall Construct new multi- specialty (100 beds) hospital in the 10 km of the project area within 2 years for local people after issue of this letter.

PP submitted that two hospitals namely Atal Chikitsalaya- NCL (At Bina) with 20 beds capacity and UP State Government hospital Dibulganj (within 10 Km), which is renovated in Oct 2023 by Bina Extn. Project at a cost of Rs 406.68 lakhs with 50 bed capacity already exist. PP further submitted that the average annual bed occupancy of both the hospitals is less than 25%. Therefore, the facility of above two 70 bedded

hospitals available nearby is serving the needs of the local people effectively. In addition to the above, NCL has fully operational ~200 bedded hospital namely Nehru Shatabdi Hospital (15 km from Bina) to cater the needs of both employees and nearby local people.

The Committee is of the view that the proposal for amendment of this condition, considering the average annual bed occupancy less than 25 percent, may be considered, however PP is required to submit the details on the Multi-Speciality hospital, present within 15km of project site, alongwith proposed up gradation. PP vide letter dated 12.05.2024 and further vide letter dated 24.05.2024 submitted the following detail w.r.t Nehru Shatabdi Hospital:

Nehru Shatabdi Hospital of NCL, multi-specialty hospital already existing within 12 Km of Bina Extn Project.

*NSC Hospital imparts primary, secondary, and part tertiary healthcare to employees & their dependents, retired employees, contractual workers, and **peripheral local people**.*

Presently, 199 beds are being operated in NSC Hospital.

Team of 227 medical personnel including 48 doctors (34 specialists), paramedical staff, nurses, pharmacist, and technicians. Facilities like ICU, 24 hrs casualty, labour room, Radiology, labs, OT etc. Advance medical equipment's like MRI, HT-CT scan, USG, ECHO, TMT, ECG, Endoscopy, Lithotripsy, dialysis and blood bank. Sufficient no. of life supporting ambulances. 24 hrs Jan-Aushadhi.

*The hospital extends its medical facilities to **Project Affected Persons/ Peripheral Population/ BPL** as well and the cost of treatment is waived-off under CSR.*

Ayushman Bharat enabled hospital: Card holders are treated free of cost.

Facility augmentation at NSC: NCL has got a DPR for expansion and upgradation of NSC Hospital prepared by M/s HLL Lifecare Ltd (A CPSE under MoH&FW, Govt of India). Accordingly, the following upgradation works worth Rs 44.67 Cr are going on:

- a) Construction of a separate MCH building (Mother & Child Healthcare) having a capacity of 40 beds and an additional 12-bed ICU is in full swing. With this, the total capacity will be $198+40+12=250$ beds. The facility will start by August'2024.

- b) Augmentation of High-end medical equipment and medical infrastructure

*In addition to above, Bina Project has got its own 20-bedded hospital namely Atal Hospital that caters to the need of employees and **general public**. Also, there is a UP State Government Hospital 50 bedded at Dibulganj (within 10 Km) renovated in Oct 2023 at a cost of Rs 406.68 lakhs (approx).*

EAC deliberated on the amendment sought w.r.t deletion of EC condition (xxv) regarding to Construct new multi- specialty (100 beds) hospital in the 10 km of the project area within 2 years for local people after issue of this letter. Based on the submission made by the PP, committee noted that the annual average occupancy of hospital near to bina project is less than 25percent and moreover, Nehru **Shatabdi Hospital of NCL, multi-specialty hospital already existing within 12 Km of Bina Extn Project, imparts primary, secondary, and part tertiary healthcare to employees & their dependents, retired employees, contractual workers, and peripheral local people.** PP further informed that NCL is augmenting the existing facility by Construction of a separate MCH building (Mother & Child Healthcare) having a capacity of 40 beds and an additional 12-bed ICU. With this, the total capacity will be 198+40+12=250 beds. The facility will start by August'2024.

EAC after detailed deliberation amended the EC condition no 4xxv as under:

In addition to other medical facilities proposed, the budgetary provision from CSR funds towards recurring expenditure for regular maintenance of High-end medical equipment and medical infrastructure in Nehru Shatabdi Hospital of NCL shall be made with approval from the District Administration.

Based on the detailed discussions held during the meeting on the amendment sought w.r.t five EC conditions, the EAC recommended the proposal for Amendment in Environment Clearance (EC) condition no 4 (iv) and 4 (xxv) stipulated vide EC dated 29.07.2022, granted to M/s Northern Coalfields Limited for Bina Extn Project, located in District Sonebhadra of State Uttar Pradesh and District Singrauli of Madhya Pradesh (ML Area 1790.377 Ha & capacity 10.5 MTPA), as under:

Ref No	EC Conditions	EAC recommendation
4 (iv)	Mining shall be carried out only by surface miners for the project (as proposed) and silo loading till railway siding through in-pit conveyor should be installed to avoid road. No road transportation shall be conducted.	Recommended for an amendment as under: Mining shall be carried out by surface miners for the project except in Turra seam wherein shovel-dumper combination can be used and silo loading till railway siding through in-pit conveyor should be installed to avoid road transport. No road transportation shall be conducted.
4(viii)	PP shall plant 200 ha of Sal trees(only) and 200 ha of fruit bearing trees and create a nursery of 10 ha (within 2 years) to distribute the species freely in the region for	Not recommended in the present form. PP is required to submit following for further consideration: The Committee deliberated on the PP request for an amendment in above

	redevelopment of Sal forest in the region	mentioned specific condition and advised PP to explore feasibility of SAL plantation, estimate survival rate, approach TFRI Jabalpur or any other institute of MoEFCC (ICFRE) for guidance and undertaking this plantation.
4(xi)	PP shall install sand segregation plant for suitable capacity to extract sand and construction aggregate within 2 years of issue of this letter.	Not recommended in the present form. PP is required to submit following for further consideration: The Committee is of the view that PP should also approach state PWD for quality check and use of sand. Based on the comments from PWD department, amendment may be reconsidered.
4(xxii)	PP should conduct epidemiology study to analysis of the distribution, patterns and determinants of health and disease conditions in defined population.	Amendment Not recommended The Committed asked PP to approach AIIMS, ICMR, State Public Health Department, Government/Autonomous Health Research institutes etc and award the work in project mode. Deletion of this condition may not be considered as epidemiology study (Health profile in a defined population) is significant to understand and to adopt preventive measures for occurrence, and distribution of disease in a defined population around the mining area. Therefore, PP is required to put all efforts to get the study done and submit the study report to Region Office, MoEF&CC and on PARIVESH portal
4(xxv)	PP shall Construct new multi-specialty (100 beds) hospital in the 10 km of the project area within 2 years for local people after issue of this letter.	Recommended for an amendment as under: <i>In addition to other medical facilities proposed, the budgetary provision from CSR funds towards recurring expenditure for regular maintenance of High-end medical equipment and medical infrastructure in Nehru Shatabdi Hospital of</i>

		<p><i>NCL shall be made with approval from the District Administration.</i></p>
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In addition to above the Committee is of the view the following additional condition shall apply:

- 1. PP shall comply with the other conditions of the earlier EC's granted to this project.*

Agenda No. 11.8

Environment Clearance of Gare Palma Sector II Coal Mine Project of Open Cast 22.0 MTPA+ Underground 1.6 MTPA Capacity in mine lease area of 2583.48 ha of M/s Maharashtra State Power Generation Company Limited- Reg

[Proposal No. IA/CG/CMIN/466451/2024; File No. J-11015/122/2007-IA. II(M); Consultant: M/s Vardan Enviro Lab]

11.8.1: The proposal of the Gare Palma sector II coal Mine Project of Open Cast 22.0 MTPA+ Underground 1.6 MTPA Capacity in a mine lease area of 2583.48 ha of M/s Maharashtra State Power Generation Company Limited was considered in the 8th & 9th EAC meeting held during 20.03.2024 and 21.03.2024 respectively, wherein the Committee deferred the proposal for want of additional information. In the 9th EAC meeting, the Committee was of the view that to further deliberate on this issue, the representatives of SPCB shall be invited to the EAC meeting. Accordingly, PP submitted the reply (i.e. status of action taken so far on the information sought by EAC) and the proposal is now placed in the 11th EAC meeting held on 9.05.2024.

11.8.2: During the meeting, the Committee is of the view that although the PP provided status of information sought by EAC in the 9th EAC Meeting but during this meeting the PP and NABET Accredited consultant shall focus on mainly two issues viz., (i) Procedure followed while conducting Public Consultation and (ii) Carrying Capacity study as the other information submitted by the PP is premature at this stage and also a site visit is yet to be conducted by the sub-committee. Therefore, during this meeting deliberation is to be done on the following two issues.

Issue 1: Procedure followed while conducting Public Consultation:

The Committee noted that, Hon'ble NGT in its Judgement dt. 15.01.2024 asked the Ministry to review the proposal from the stage of conducting Public consultation afresh. Therefore, the Committee in the previous meeting asked that *“As per EIA Notification 2006 (as amended) the concerned State Pollution Control Board is responsible for conducting a public hearing and also for seeking written responses from the concerned persons having a stake in the environmental aspects of the project or activity. Therefore, the Member Secretary, Chhattisgarh State Pollution Control Board shall provide details*

of the prescribed procedure followed for the Public Hearing; was this procedure was fully followed as per the rules; the number of people who participated; details of written submissions received; details of issues/ concerns raised by the attendees both orally and in writing. The Committee is also of the view that any comments received from the applicants who have filed the case before Hon'ble NGT may also be provided. The Committee is of the view that to further deliberate on this issue, the representatives of SPCB shall be invited to the EAC meeting."

During the meeting, it was informed to the Committee that Ministry vide email dt. 02nd May 2024, requested Member Secretary, State Pollution Control Board, to take necessary action as per the above recommendation of EAC and also to attend the 11th EAC meeting scheduled for 09th May 2024.

The PP informed that Member Secretary, CECB vide letter dated 29.04.2024 provided details of the prescribed procedure followed and mentioned that procedure was followed as per EIA Notification 2006. It was also informed to the Committee that Sh. R.K Sharma (SE, CECB) and Sh. Jhon Lakda (ACE, CECB) representatives from SPCB has joined the meeting through virtual mode.

The committee interacted with the above representatives of CECB on the procedure followed during the public consultation. The representative of CECB informed that Member Secretary, Chhattisgarh Environment Conservation Board (CECB) vide letter dated 29.04.2024 provided a clarification regarding the public hearing and as per the clarification provided by MS, CECB, the public hearing was conducted by CECB as per the procedures laid down in EIA notification 2006 (as amended). All the provisions of EIA Notification, 2006 has been complied with. The representative of CECB also confirmed the same during the meeting. The Committee observed that in the letter dated 29.04.2024 following is mentioned:

- 1) *As per para 3.1 of APPENDIX IV OF EIA Notification 2006, Member Secretary, Chhattisgarh Environment Conservation Board, finalized the date, time and exact venue to conduct public hearing for Environment Clearance of Gare Palma Sector II coal Mine Project Open Cast 22.0 MTPA and Underground 1.6 MTPA Capacity in mine lease area of 2583.48 ha of M/s Maharashtra State Power Generation Company Limited. Located in Village-Tilhi Rampur, Kunjemura, Gare, Saraitola, Murogaon, Radopali, Pata, Chitwahi, Dholnara, JhinkaBahal, Dolesara, Bhalumura, Sarasmal and Libra, Tehsil-Gharghoda, District- Raigarh, (Chhattisgarh) The Date of public hearing was 27/09/2019 at the premises of Government Primary School, Dolesara, Tamnar, District-Raigarh (C.G.).*
- 2) *As per para 3.2 of APPENDIX IV OF EIA Notification 2006, The same was advertised in National Daily News Paper Hindustan Times on 25/08/2019 and Regional Vernacular Daily Dainik Bhaskar on 24/08/2019. A minimum notice of 30 days was given to public for furnishing their responses.*
- 3) *As per para 3.2 of APPENDIX IV OF EIA Notification 2006, The places and offices*

were also mentioned in the advertisement to access the draft Environment Impact Assessment report and the Summary Environmental Impact Assessment report.

- 4) As per para 2.4 of APPENDIX IV OF EIA Notification 2006, The Draft EIA Report and Executive Summary of the project was placed in the following offices 1. Office of District Collector, Raigarh, 2. Office of Zila Panchayat, 3. District trade & Industries center, Raigarh, 4. SDM (Revenue) Gharghoda, Raigarh(C.G.), 5. Regional Officer, Regional Office, Chhattisgarh Environment Conservation Board, Raigarh (C.G.). 6. IRO Ministry of Environment, Forest & Climate Change, Civil lines, Nagpur (M.H.), 7. Director Environment, Ministry of Environment, Forest & Climate Change, New Delhi, 8. Gram Panchayat, VillageTilhi Rampur, Kunjemura, "Gare, Saraitola, Murogaon, Radopali, Pata, Chitwahi, Dholnara, JhinkaBahal, Dolesara, Bhalumura, Sarasmal and Libra, Tehsil-Tamnar, District- Raigarh, 9. Member Secretary, Chhattisgarh Environment Conservation Board, Atal Nagar Nava Raipur (C.G.) for free public access.
- 5) As per para 2.4 of APPENDIX IV OF EIA Notification 2006, Notice of public hearing along with Draft EIA Report and Executive Summary was also made available to Gram Panchayat, Village-Tilhi Rampur, Kunjemura, Gare, Saraitola, Murogaon, Radopali, Pata, Chitwahi, Dholnara, JhinkaBahal, Dolesara, Bhalumura, Sarasmal and Libra, Tehsil-Tamnar, DistrictRaigarh, 30 days before scheduled date of public hearing for their responses.
- 6) The public hearing of the project was held on 27/09/2019 at the premises of Government Primary School, Dolesara, Tamnar, District-Raigarh(C.G.).
- 7) AS per para 4.1 of APPENDIX IV OF EIA Notification 2006, Additional District Magistrate Raigarh supervised and presided over the entire public hearing.
- 8) As per para Magistrate, 6.1 of APPENDIX IV OF EIA Notification 2006, 57 persons signed the attendance register during the public hearing.
- 9) As per para 6.3 of APPENDIX IV OF EIA Notification 2006, The public hearing was started at 11:00 AM on 27/09/2019. Representative of applicant initiated the proceedings with a presentation on the project and the Summary of EIA report.
- 10)59 persons present at the venue responded orally which were recorded in proceedings.
- 11)Two responses in writing were also received during the public hearing.
- 12)Additional District Magistrate, Raigarh also announced many times to come forward and respond and record their objection and consent if any regarding project.
- 13)As per para 6.4 of APPENDIX IV OF EIA Notification 2006, Every person present at the venue was given opportunity to seek information or clarifications on the project from the applicant. The summary of the public hearing proceedings accurately reflecting all the views and concerns expressed was recorded and read

over the audience at the end of the proceedings. The minutes were signed by Additional District Magistrate, Raigarh and Representative of Chhattisgarh Environment Conservation Board i.e. Regional Officer, Raigarh.

- 14) The M/s Maharashtra State Power Generation Company Limited, Representative clarified and addressed the objections, issues raised and information's etc. raised by the public present during public hearing.*
- 15) The public hearing proceedings was read over to the audience at the end. Then public hearing was concluded with vote of thanks at 05.00 P.M on 27/09/2019.*
- 16) As per para 5.1 of APPENDIX IV OF EIA Notification 2006, Video recording of entire public hearing. was properly conducted.*
- 17) As per para 6.6 of APPENDIX IV OF EIA Notification 2006, The proceedings of the public hearing were conspicuously displayed at the 1. Office of District Collector, Raigarh, 2. Office of Zila Panchayat, 3. Member Secretary, Chhattisgarh Environment Conservation Board, Atal Nagar Nava Raipur (C.G.) 4 Regional Officer, Regional Office, Chhattisgarh Environment Conservation Board, Raigarh (C.G.). 5. Gram Panchayat, Village-Tilhi Rampur, Kunjemura, Gare, Saraitola, Murogaon, Radopali, Pata, Chitwahi, Dholnara, JhinkaBahal, Dolesara, Bhalumura, Sarasmal and Libra, Tehsil-Tamnar, District- Raigarh.*
- 18) As per para 7.2 of APPENDIX IV OF EIA Notification 2006, Chhattisgarh Environment Conservation Board sent proceedings of the public hearing along with the objection and suggestions received during the public hearing and also before and after the public hearing, video-graph of public hearing and attendance sheet etc. vide letter no. 6246 dated 16/10/2019 to MoEF&CC with endorsement to M/s Maharashtra State Power Generation Company Limited with all enclosures.*
- 19) The public hearing thus conducted by Chhattisgarh Environment Conservation Board for proposed project is as per procedure laid down in EIA notification, 2006 (as amended). All the provisions of EIA notification, 2006 for public hearing has been complied with.*
- 20) Chhattisgarh Environment Conservation Board received written responses before the date of public hearing. List is enclosed.*

The Committee asked whether the opportunity was given to local people to record their observation in this regard representative of CECB informed that Additional District Magistrate, Raigarh announced many times and local people were asked to come forward and respond and record their objections and consent if any regarding project. The Committee also observed that the same was also recorded in the letter dated 29.04.2024 at Sl. No 12. It was also informed to the Committee that 59 persons present at the venue responded orally and 2 persons submitted the written response.

The Committee also asked whether the four petitioners who have filed the case before the Hon'ble NGT recorded their oral and written submission during the PH or earlier submitted any responses. In this regard, representative of CECB informed that

representation of two of the petitioners were received in 2018 and 2019 respectively. Further, they have submitted health and environment reports prepared by some individuals on their own and not endorsed by any government agency.

The Committee observed that in letter dated 02.04.2018 one of the petitioner requested for cancellation of the Public Hearing on various grounds viz. i) Gram Sabha's NOC for Forest Rights Act, ii) no project can be established in the Fifth Schedule area without the permission of the Gram Sabha, this public hearing being organized in disregard of the Constitution and the PESA Act., iii) Forests and agricultural land will be destroyed, iv) mining should not be done in this area without carrying capacity study and cumulative impact assessment, v) issues related to acquisition of land including tribal land, iv) pendency of forest right claims, vii) environmental condition of this area should be examined etc. The Committee observed that other petitioner raised issue regarding violation of Panchayat Raj Adhiniyam via written submission that gramsabha has not been conducted in all the affected villages, hence request to cancel the public hearing.

The Committee is of the view that a health and environment reports mentioned by CECB shall also be considered/referred while conducting health study and carrying capacity study as already suggested by EAC in its previous meeting.

It was also informed to the Committee that Maharashtra State Power Generation Company Limited has already obtained Stage –II FC on 27.01.2023 and PP vide email dated 03.05.2024 also submitted the letter dated 02/12/2019 issued by the Collector, Raigarh District thereby forwarding the NOCs obtained from Gram Sabha.

The Committee is of the view that CECB shall provide their comments on this issue and any other additional information in writing. Further, the Subcommittee shall visit the site and submit its report for further deliberation on the issue.

Issue 2: Carrying Capacity Study:

The Committee observed that the Hon'ble NGT in its Judgement dated 15.01.2024 at para 218 inter alia mentioned that *"...We find that carrying capacity study was to be conducted by CPCB and CECB and data was required to be compiled by the said authorities. There is nothing on record to show that any such study in respect of Tamnar Block which included questioned area was conducted as per direction in Shivpal Bhagat (supra). Therefore, carrying capacity study by authority which was required to undertake the same, has not been conducted and this aspect has not been taken care by the Competent Authority in granting prior EC."*

The Committee asked the representative of SPCB about the same and it was informed that SPCB has engaged IIT Bhilai and IIT Bombay to conduct the carrying capacity study of Tamnar Block and Gharghoda Block of Raigarh District of Chhattisgarh. The committee asked whether this mine is also included in the same. In this regard, it was informed to the committee that the said study was done for existing coal mines, thermal power plants,

sponge iron plants, etc. and this mine was not included in the same. The Committee is therefore of the view, that SPCB shall request IIT Bhilai and IIT Bombay, to conduct carrying capacity study which should include not only the present operating mines and industries but also the proposed industries and mines coming up in the area, along with the mitigative measures which should be taken for the same. Also, SPCB is required to clarify the CEPI Score of Raigarh and provide its comments whether the said district fall under the Severely or Critically Polluted Area. It was also informed to the Committee that one CAAQMS was established in the said region. The Committee therefore asked the SPCB to also provide the AAQ data for the last one year.

The committee suggested that independent studies submitted by applicants to SPCB may also be forwarded to an IIT or reputed government institution for conducting additional carrying capacity and cumulative impact assessment study by also taking into account the impact of the proposed project on the local environment. Mitigation measures shall also be suggested in the additional carrying capacity study by an IIT/ reputed Government institute.

In addition to above, the Chairman EAC desired that a sub-committee shall visit the project site and submit its report. It was informed to the Chairman that a site visit has already planned during 17-19th May, 2024 however, the office order is yet to be issued. The Chairman EAC is of the view that Ministry shall expedite the same.

Based on the discussion held and documents submitted the Committee **deferred** the proposal for want of following:

- i) *Additional information already sought by the EAC, including additional carrying capacity study as mentioned above.*
- ii) *Site visit report by the EAC Sub-Committee.*
- iii) *CECB shall provide their comments and any other additional information in writing.*

Annexure-I

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

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

(a) Statutory compliance

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

(b) Air quality monitoring and preservation

- (i) Continuous ambient air quality monitoring stations as prescribed in the statute

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

- (ii) The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.
- (iii) Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water/mist sprinkling/rain gun etc shall be carried out in critical areas prone to air pollution (with higher values of PM₁₀/PM_{2.5}) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.
- (iv) The transportation of coal shall be carried out as per the provisions and route envisaged in the approved Mining Plan or environment monitoring plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.
- (v) Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.
- (vi) Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid airborne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.

- (vii) Coal handling plant shall be operated with effective control measures w.r.t. various environmental parameters. Environmental friendly sustainable technology should be implemented for mitigating such parameters.
- (c) Water quality monitoring and preservation**
- (i) The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board.
- (ii) The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J-20012/1/2006-IA.11 (M) dated 27th May, 2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
- (iii) Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.
- (iv) Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.
- (v) Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.
- (vi) Catch and/or garland drains and siltation ponds in adequate numbers and appropriate size shall be constructed around the mine working, coal heaps & OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be properly consolidated/ compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. The drains/ ponds

so constructed shall be regularly de-silted particularly before onset of monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper settling of silt material. The water so collected in the sump shall be utilised for dust suppression and green belt development and other industrial use. Dimension of the retaining wall constructed, if any, at the toe of the OB dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the dump and adjacent field/habitation/water bodies.

- (vii) Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) after due treatment conforming to the specific requirement (standards).
- (viii) Industrial waste water generated from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed under the standards prescribed under Water Act 1974 and Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Adequate ETP /STP needs to be provided.
- (ix) The water pumped out from the mine, after siltation, shall be utilized for industrial purposive. 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/Gol 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.
- (iii) 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.
- (iv) (ii) Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.

(f) Land reclamation

- (i) Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of

Environment, Forest and Climate Change(MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).

- (ii) The final mine void depth should preferably be as per the approved Mine Closure Plan, and in case it exceeds 40 m, adequate engineering interventions shall be provided for sustenance of aquatic life therein. The remaining area shall be backfilled and covered with thick and alive top soil. Post-mining land be rendered usable for agricultural/forestry purposes and shall be diverted. Further action will be treated as specified in the guidelines for Preparation of Mine Closure Plan issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.
- (iii) The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conformity with the “during mining”/“post mining” land-use pattern, which is an integral part of the approved Mining Plan and the EIA/EMP submitted to this Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the MOEFCC/RO.
- (iv) Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3rd November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, along with fly ash for external dump of overburden, backfilling of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.
- (v) Further, it may be ensured that as per the time schedule specified in mine closure plan it should remain live till the point of utilization. The topsoil shall temporarily be stored at earmarked site(s) only and shall not be kept unutilized. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be stabilized 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 allalong 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 OMNo.Z-11013/5712014-IA.I1 (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

(i) Corporate Environment Responsibility

- (i) The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No.22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- (ii) The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violation of the environmental/forest/wildlife norms/conditions and/or shareholder's/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 environmental clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- (iv) The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- (v) The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- (vi) The project proponent shall follow the mitigation measures provided in this Ministry's OM No. Z-11013/5712014-IA. II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.
- (vii) The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- (viii) The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.

- (ix) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- (x) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- (xi) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change.
- (xii) Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- (xiii) The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- (xiv) The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- (xv) The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- (xvi) The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

Annexure-II

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, fromtime 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. (in case of the presence of Schedule-I species in the study area).
- (v) The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
- (vi) The project proponent shall obtain the necessary permission from the Central Ground Water Authority.
- (vii) Solid waste/hazardous waste generated in the mines needs to addressed in

accordance to the Solid Waste Management Rules, 2016 / Hazardous & Other Waste Management Rules,2016

II. Air quality monitoring and preservation

- i. Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely particulates, SO₂ and NO_x. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive receptors in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc. to be carried out at least once in six months. Online ambient air quality monitoring station/stations may also be installed in addition to the regular air monitoring stations as per the requirement and/or in consultation with the SPCB.
- ii. The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.
- iii. Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water sprinkling/rain gun/ mist sprinkling etc., shall be carried out in critical areas prone to air pollution with higher level of particulate matter all through the coal transport roads, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.
- iv. Major approach roads shall be black topped and properly maintained.
- v. The transportation of coal shall be carried out as per the provisions and route proposed in the approved mining plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed that the impact of sound, dust and accidents could be appropriately mitigated.

- vi. Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.
- vii. Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid airborne 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 run off.
- viii. The water pumped out from the mine, after siltation, shall be utilized for industrial purposive. 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/Gol

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 revarian /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 equipment (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 beconducted.
- 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 MinesAct 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 (MoEF&CC).
- iii. Mining shall be carried out as per the approved mining plan (including mine closure plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).
- iv. Underground work place environmental conditions shall be rendered ergonomic and air breathable with adequate illumination in conformance with DGMS standards.

- v. No mining activity shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980 and also adhering to The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 read with provisions of Indian Forest Act, 1927.
- vi. Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.

VI. Land reclamation

- i. Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change (MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).
- ii. Post-mining land be rendered usable for agricultural/forestry purposes and shall be handed over to the respective State Government, as specified in the Guidelines for Preparation of Mine Closure Plan, issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.
- iii. Regular monitoring of subsidence movement on the surface over and around the working areas and its impact on natural drainage pattern, water bodies, vegetation, structure, roads and surroundings shall be continued till movement ceases completely. In case of observation of any high rate of subsidence beyond the limit prescribed, appropriate effective mitigation measures shall be taken to avoid loss of life and materials. Cracks should be effectively plugged in with ballast and clay soil/suitable material.
- iv. Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3rd November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, along with 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 OMNo.Z-11013/5712014-IA. II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

IX. Corporate Environment Responsibility

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

Annexure-III

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. (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 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, SO₂ and NO_x. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive receptors in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc. carried out at least once in six months.

- ii. Continuous ambient air quality monitoring stations as prescribed in the statute be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM10, PM2.5, SO2 and NOx. 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 up to 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 riverfront side stabilized 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 MoEF&CC 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 MoEF&CC. The make-up water requirement of washery should not exceed 1.5 m³/tonne of raw coal.
- xi. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEF&CC/RO. 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.
- xii. 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 neighboring 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/transferpoints 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. 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.

- ii. 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.
- iii. 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.
- iv. The project proponent shall follow the mitigation measures provided in this Ministry's OM No. Z-11013/5712014-IA.11 (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

VIII. Miscellaneous

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

website and update the same on half-yearly basis.

- iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (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 (MoEF&CC) 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 period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

ANNEXURE-IV

Generic ToR for coal washery

- i. Siting of washery is critical considering to its environmental impacts. Preferences 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 washer 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 along with a layout, the specific technology used and the source of coal should be provided.
- vi. The EIA-EMP Report should cover the impacts and management plan for the project of the capacity for which EC is sought and the impacts of specific activities, including the technology used and coal used, on the environment of the area (within 10km radius), and the environmental quality of air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts for the rated capacity. Cumulative impacts for air and water should be a part of EIA in case coal mine, TPP and other washeries are located within 10km radius. The EIA should also include mitigative measures needed to minimize adverse environmental impacts.
- vii. A Study Area Map of the core zone as well as the 10km area of buffer zone showing major industries/mines and other polluting sources should be submitted. These maps shall also indicate the migratory corridors of fauna, if any and areas of endangered fauna; plants of medicinal and economic importance; any ecologically sensitive areas within the 10 km buffer zone; the shortest distance from the National Park/WL Sanctuary Tiger Reserve, etc. along with the comments of the Chief Wildlife Warden of the State Govt.
- viii. Data of one-season (non-monsoon) primary- base-line data on environmental quality of air (PM10, PM2.5, SOx and NOx, 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 along with Action Plan.
- xiv. O.M. No. J-II013/25/2014-IA.I dated 11th August, 2014 to be followed with regard to CSR activities.
- xv. Details of Public Hearing, Notice(s) issued in newspapers, proceedings/minutes of Public Hearing, points raised by the general public and response/commitments made by the proponent along with the Action Plan and budgetary provisions be submitted in tabular form. If the Public Hearing is in the regional language, an authenticated English translation of the same should be provided. Status of any litigations/ court cases filed/pending, if any, against the project should be mentioned in EIA.
- xvi. Analysis of samples indicating the following be submitted: Characteristics of coal prior to washing (this includes grade of coal, other characteristics of ash, S and heavy levels of metals such as Hg, As, Pb, Cr etc). Characteristics and quantum of coal after washing. Characteristics and quantum of coal rejects.
- xvii. Details of management/disposal/use of coal rejects should be provided. The rejects should be used in TPP located close to the washery as far as possible. If TPP is within a reasonable distance (10 km), transportation should be by conveyor belt. If it is far away, the transportation should be by rail as far as possible.

xviii. Copies of MOU/Agreement with linkages (for stand-alone washery) for the capacity for which EC is being sought should be submitted.

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

GENERIC TOR FOR AN OPENCAST COALMINE PROJECT for EC

- (i) An EIA-EMP Report shall be prepared for MTPA rated capacity in an ML/project area of.....ha based on the generic structure specified in Appendix III of the EIA Notification, 2006.
- (ii) An EIA-EMP Report would be prepared for..... MTPA rated capacity to cover the impacts and environment management plan for the project specific activities on the environment of the region, and the environmental quality encompassing air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts including prediction modeling for MTPA of coal production based on approved project/Mining Plan for.....MTPA. Baseline data collection can be for any season (three months) except monsoon.
- (iii) A toposheet specifying locations of the State, District and Project site should be provided.
- (iv) A Study area map of the core zone (project area) and 10 km area of the buffer zone (1: 50,000 scale) clearly delineating the major topographical features such as the land use, surface drainage pattern including rivers/streams/nullahs/canals, locations of human habitations, major constructions including railways, roads, pipelines, major industries/mines and other polluting sources. In case of ecologically sensitive areas such as Biosphere Reserves/National Parks/WL Sanctuaries/ Elephant Reserves, forests (Reserved/Protected), migratory corridors of fauna, and areas where endangered fauna and plants of medicinal and economic importance found in the 15 km study area should be given.
- (v) Land use map (1: 50,000 scale) based on a recent satellite imagery of the study area mayalso 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-channeling 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 followingtable:

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

- (xii) Break-up of lease/project area as per mining plan should be provided.
- (xiii) Impact of changes in the land use due to the project if the land is predominantly agricultural land/forestland/grazing land, should be provided.
- (xiv) One-season (other than monsoon) primary baseline data on environmental quality - air (PM10, PM2.5, SO_x, NO_x and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil - along with one-season met data coinciding with the same season for AAQ collection period should be provided.
- (xv) Map (1: 50, 000 scale) of the study area (core and buffer zone) showing the location of various sampling stations superimposed with location of habitats, other industries/mines, polluting sources, should be provided. The number and location of the sampling stations in both core and buffer zones should be selected on the basis of size of lease/project area, the proposed impacts in the downwind (air)/downstream (surface water)/groundwater regime (based on flow). One station should be in the upwind/upstream/non-impact/non-polluting area as a control station. The monitoring should be as per CPCB guidelines and parameters for water testing for both ground water and surface water as per ISI standards and CPCB classification wherever applicable. Observed values should be provided along with the specified standards.
- (xvi) Study on the existing flora and fauna in the study area (10km) should be carried out by an institution of relevant discipline. The list of flora and fauna duly authenticated separately for the core and study area and a statement clearly specifying whether the study area forms a part of the migratory corridor of any endangered fauna should be given. If the study area has endangered flora and fauna, or if the area is occasionally visited or used as a habitat by Schedule-I species, or if the project falls within 15 km of an ecologically sensitive area, or used as a migratory corridor then a Comprehensive Conservation Plan along with the appropriate budgetary provision should be prepared and submitted with EIA-EMP Report; and comments/observation from the CWLW of the State Govt. should also be obtained and furnished.
- (xvii) Details of mineral reserves, geological status of the study area and the seams to be worked, ultimate working depth and progressive stage-wise working scheme until the end of mine life should be provided on the basis of the approved rated capacity and calendar plans of production from the approved Mining Plan. Geological maps and sections should be included. The Progressive mine development and Conceptual Final Mine Closure Plan

should also be shown in figures. Details of mine plan and mine closure plan approval of Competent Authority should be furnished for green field and expansion projects.

- (xviii) Details of mining methods, technology, equipment to be used, etc., rationale for selection of specified technology and equipment proposed to be used vis-à-vis the potential impacts should be provided.
- (xix) Impact of mining on hydrology, modification of natural drainage, diversion and channeling of the existing rivers/water courses flowing through the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon.
- (xx) Detailed water balance should be provided. The break-up of water requirement for the various mine operations should be given separately.
- (xxi) Source of water for use in mine, sanction of the Competent Authority in the State Govt. and impacts vis-à-vis the competing users in the upstream and downstream of the project site. should be given.
- (xxii) Impact of mining and water abstraction from the mine on the hydrogeology and groundwater regime within the core zone and 10 km buffer zone including long-term monitoring measures should be provided. Details of rainwater harvesting and measures for recharge of groundwater should be reflected in case there is a declining trend of groundwater availability and/or if the area falls within dark/grey zone.
- (xxiii) Impact of blasting, noise and vibrations should be given.
- (xxiv) Impacts of mining on the AAQ and predictions based on modeling using the ISCST-3 (Revised) or latest model should be provided.
- (xxv) Impacts of mineral transportation within the mining area and outside the lease/project along with flow-chart indicating the specific areas generating fugitive emissions should be provided. Impacts of transportation, handling, transfer of mineral and waste on air quality, generation of effluents from workshop etc, management plan for maintenance of HEMM and other machinery/equipment should be given. Details of various facilities such as rest areas and canteen for workers and effluents/pollution load emanating from these activities should also be provided.

- (xxvi) Effort be made to reduce/eliminate road transport of coal inside and outside mine and for mechanized loading of coal through CHP/ Silo into wagons and trucks/tippers.
- (xxvii) Details of waste OB and topsoil generated as per the approved calendar programme, and their management shown in figures as well explanatory notes tables giving progressive development and mine closure plan, green belt development, backfilling programme and conceptual post mining land use should be given. OB dump heights and terracing based on slope stability studies with a max of 28o angle as the ultimate slope should be given. Sections of final dumps (both longitudinal and cross section) with relation to the adjacent area should be shown.
- (xxviii) Efforts be made for maximizing progressive internal dumping of O.B., sequential mining, external dump on coal bearing area and later re-handling into the mine void. --to reduce land degradation.
- (xxix) Impact of change in land use due to mining operations and plan for restoration of the mined area to its original land use should be provided.
- (xxx) Progressive Green belt and ecological restoration /afforestation plan (both in text, figures and in the tabular form as per the format of MOEFCC given below) and selection of species (native) based on original survey/land-use should be given.

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

S.N.	Land use Category	Present (1 st Year)	5 th Year	10 th Year	20 th Year	24 th Year (end of minelife)*
1.	Backfilled Area Reclaimed with plantation)					
2.	Excavated Area (not reclaimed)/void					
3.	External OB dump Reclaimed with plantation)					
4.	Reclaimed Top soil dump					

5.	Green Built Area					
6.	Undisturbed area (brought under plantation)					
7.	Roads (avenue plantation)					
8.	Area around buildings and Infrastructure					
	TOTAL					

* As a representative example

Table 2: Stage Wise Cumulative Plantation

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

* As a representative example

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

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

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

- (xxxii) Flow chart of water balance should be provided. Treatment of effluents from workshop, township, domestic wastewater, mine water discharge, etc. should be provided. Details of STP in colony and ETP in mine should be given. Recycling of water to the max. possible extent should be done.
- (xxxiii) Occupational health issues. Baseline data on the health of the population in the impact zone and measures for occupational health and safety of the personnel and manpower in the mine should be given.
- (xxxiv) Risk Assessment and Disaster Preparedness and Management Plan should be provided.
- (xxxv) Integration of the Environment 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 tribal, 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:

(xl)

- a) The Company must have a well laid down Environment Policy approved by the Board of Directors.
- b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.
- c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.
- d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.

(xl) Details on Public Hearing should cover the information relating to notices issued in the newspaper, proceedings/minutes of Public Hearing, the points raised by the general public and commitments made by the proponent and the action proposed with budgets in suitable time frame. These details should be presented in a tabular form. If the Public Hearing is in the regional language, an authenticated English Translation of the same should be provided.

(xli) In built mechanism of self-monitoring of compliance of environmental regulations should be indicated.

(xlii) Status of any litigations/ court cases filed/pending on the project should be provided.

(xliii) Submission of sample test analysis of Characteristics of coal: This should include details on grade of coal and other characteristics such as ash content, S and heavy metals including levels of Hg, As, Pb, Cr etc.

(xliv) Copy of clearances/approvals such as Forestry clearances, Mining Plan Approval, mine closer plan approval. NOC from Flood and Irrigation Dept. (if req.), etc. wherever applicable.

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

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

**GENERIC TORs FOR AN UNDERGROUND COALMINE
PROJECT**

- (i) An EIA-EMP Report shall be prepared for MTPA rated capacity in an ML/project area of ha based on the generic structure specified in Appendix III of the EIA Notification, 2006.
- (ii) An EIA-EMP Report would be prepared for MTPA rated capacity to cover the impacts and environment management plan for the project specific activities on the environment of the region, and the environmental quality encompassing air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts including prediction modeling for MTPA of coal production based on approved project/Mining Plan for MTPA.
- (iii) Baseline data collection can be for any season (three months) except monsoon.
- (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/nallahs/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) 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.
- (vi) 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.
- (vii) 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-channeling of the water courses, etc., approach roads, major haul roads, etc should be indicated.

- (viii) 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	

- (ix) 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.

- (x) 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.
- (xi) 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.
- (xii) 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.
- (xiii) One-season (other than monsoon) primary baseline data on environmental quality - air (PM₁₀, PM_{2.5}, SO_x, NO_x and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil - along with one-season met data coinciding with the same season for AAQ collection period should be provided.
- (xiv) Map (1: 50, 000 scale) of the study area (core and buffer zone) showing the location of various sampling stations superimposed with location of habitats, other industries/mines, polluting sources, should be provided. The number and location of the sampling stations in both core and buffer zones should be selected on the basis of size of lease/project area, the proposed impacts in the downwind (air)/downstream (surface water)/groundwater regime (based on flow). One station should be in the upwind/upstream/non-impact/non-polluting area as a control station. The monitoring should be as per CPCB guidelines and parameters for water testing for both ground water and surface water as per ISI standards and CPCB classification wherever applicable. Observed values

should be provided along with the specified standards.

- (xv) 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.
- (xvi) Study on subsidence including modeling for prediction, mitigation/prevention of subsidence, continuous monitoring measures, and safety issues should be carried out.
- (xvii) Detailed water balance should be provided. The breakup 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.
- (xviii) 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.
- (xix) 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.
- (xx) 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.
- (xxi) 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.
- (xxii) 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.

(xxiii) 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.

(xxiv) 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.

(xxv) 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.

(xxvi) Cost of EMP (capital and recurring) should be included in the project cost and for progressive and final mine closure plan.

(xxvii) Details of R&R. Detailed project specific R&R Plan with data on the existing socio- economic status of the population (including tribal, 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.

(xxviii) 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.

(xxix) 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.
- (xxx) 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.
- (xxxii) In built mechanism of self-monitoring of compliance of environmental regulations should be indicated.
- (xxxiii) Status of any litigations/ court cases filed/pending on the project should be provided.
- (xxxiiii) 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.
- (xxxv) Copy of clearances/approvals such as Forestry clearances, Mining Plan Approval, mine closer plan approval. NOC from Flood and Irrigation Dept. (if req.), etc. wherever applicable.

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

Total ML /Project Area (ha)	Total Forest Land (ha)	Date of FC	Extent of Forest Land	Balance are a 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			

ANNEXURE-VII

GENERIC TORs FOR AN OPENCAST -CUM UNDERGROUND COAL MINE 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.

ANNEXURE-VIII**LIST OF PARTICIPANTS OF EAC (COAL) IN 11th MEETING HELD ON 8th MAY & 9th MAY, 2024 THROUGH HYBRID MODE**

S. No.	Name & Address	Role	08.05.2024	09.05.2024
1.	Dr. Sharad Singh Negi (I.F.S. Retd.)	Chairman	Present	Present
3.	Shri Inder Pal Singh Matharu, IFS (Retd.)	Member	Present	Present
3.	Shri Lalit Kapur	Member	Present	Present
4.	Dr. Umesh Jagannathrao Kahalekar	Member	Present	Present
5.	Dr. Santosh Kumar Hampannavar	Member	Present	Present
6.	Shri Savalge Chandrasekhar	Member	Absent	Present
7.	Shri K. B. Biswas	Member	Present	Absent
8.	Prof. Shyam Shanker Singh	Member	Present	Present
9.	Dr. Vinod Agrawal	Member	Present	Present
10.	Dr Nazimuddin, Scientist - F	Representative of the Central Pollution Control Board	Absent	Present
11.	Shri Mahi Pal Singh, Chief Engineer	Representative of the Central Electricity Authority (CEA)	Present	Present
13.	Shri Harmeet Sahaney	Representative of the Indian Meteorological Department (IMD)	Absent	Absent
13.	Prof. R M Bhattacharjee	Representative of IIT/ISM Dhanbad	Present	Present
14.	Shri Amit Vashishtha	Member Secretary	Present	Present
MOEF&CC				
1.	Sh. Mohit Saxena	Scientist 'D'	Present	Present

APPROVAL OF CHAIRMAN EAC

The screenshot shows an email client interface with a blue header bar. The address bar displays 'https://email.gov.in/#16'. The header bar includes navigation tabs for Mail, Contacts, Calendar, Tasks, Briefcase, Preferences, My Dashboard, and a tab for the current email 'Final MoM 11th'. A search bar shows 'ininbox' and the user's name 'Amit Vashishtha'. Below the header, there are action buttons: Close, Reply, Reply to All, Forward, Archive, Delete, Spam, and Actions. The email subject is 'Final MoM 11th EAC (Coal) held on 8-9 May, 2024-Reg' with '2 messages' indicated. The sender is 'sharadnegi1957@gmail.com' and the recipient is 'Amit Vashishtha'. The email body contains the following text:

Approved final MoM of 11th EAC Coal meeting as proposed.
Dr S S Negi
Vice Chairman, Rural Development and Migration Commission, Uttarakhand
former Director General Forest and Special Secretary Govt of India
Address: 178 Subhash Road Dehradun
Mob 09411173194

At the bottom, there is a link for 'Show quoted text - Reply - Reply to All - Forward - More Actions'.