

MINUTES OF 39th MEETING OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENT APPRAISAL OF COAL MINING PROJECTS HELD DURING 12-13 JANUARY, 2023 THROUGH VIDEO CONFERENCE.

Confirmation of the Minutes of 38th Meeting of the EAC (Coal) held on 14-15 December, 2022: The minutes of the Meeting of the EAC (Coal) held on 14-15 December, 2022 as confirmed by the Chairman.

Opening Remarks of the Chairman: 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.

Consideration of Proposals: The 39th meeting of the Expert Appraisal Committee (EAC) for coal mining projects was held during 12-13 January, 2023 through video conferencing with support NIC team due to Covid-19 lockdown. The EAC considered proposals as per agenda adopted for the meeting. List of participant attended the meeting is annexed. The details of deliberations held & decisions taken in the meeting are as under.

Agenda No. 39.1

Expansion of North Urimari OCP from 3.6 to 4.2 MTPA in total ML area of 535.82 ha of M/s Central Coalfield Limited located in village Urimari, Tehsil Barkagaon, District Hazaribagh (Jharkhand) - For Environmental Clearance under Ministry's OM dated 11.04.2022 (Stage II - 40% expansion) – reg. [Online Proposal Number: IA/JH/CMIN/413079/2023; File No. J-11015/307/2005-IA- II (M)]

39.1.1 The proposal is for Environment Clearance under Ministry's OM dated 11.04.2022 (Stage II - 40% expansion) for Expansion of North Urimari OCP from 3.6 to 4.2 MTPA in total ML area of 535.82 ha of M/s Central Coalfield Limited located in village Urimari, Tehsil Barkagaon, District Hazaribagh (Jharkhand).

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

- i. The project is covered in Survey of India topo sheet no. 73E/6 and is bounded by latitudes 23° 42' 04" N to 23° 43' 20"N and longitudes 85° 16' 06" E to 85° 19' 36" E.
- ii. Coal linkage of the washery is proposed through basket linkage & e-auction.
- iii. No Joint venture cartel has been formed for the project.
- iv. Project does not fall in Critically Polluted Area (CPA), where the MoEF&CC vide its OM dated 13th January 2010 has imposed moratorium on grant of environment clearance.
- v. Employment generation, project is source to direct employment of about 1350 persons.
- vi. The project is reported to be beneficial in terms of employment opportunities both for skilled and semi-skilled persons in the area. Business opportunity in secondary & tertiary sectors will increase. The proposed project will also bring about enhanced socio-economic

benefits to local population due to expenditure in CSR activities, post-mining enhancement of green cover, contribution to exchequer etc.

vii. Earlier, the Environment Clearance to the project was obtained under EIA Notification, 1994 vide MoEF&CC letter No: J-11015/307/2005-IA.II(M) Dated: 08.02.2006 for 3 MTPA. The EC was revalidated on 07.11.2019 under EIA Notification 2006, for a capacity of 3 MTPA in an area of 523.06 ha.

Later, the project was granted Environmental Clearance for a capacity of 3.6 MTPA within the project area of 523.06 Ha dated: 18.02.2022 (EC Identification No.- EC22A042JH131082) under clause 7(ii) of EIA notification 2006 and as per MoEF&CC OM No.J-11015/224/2015-IA.II(M) Dt. 15.09.2017 for one time expansion. EC granted was for 20% expansion from original 3 MTPA to 3.6 MTPA in 1st pahse.

Further, EC amendment dated: 27.12.2022 was issued by MoEF&CC wherein time limit for completion of North Urimari Railway Siding (September 2022) and CHP Silo (December 2022) has been extended to 31st July 2023.

viii. Terms of Reference granted on – (for EC proposals)- Not Applicable

ix. Total mining lease area as per block allotment is 650 Ha. Mining Plan (including Progressive Mine Closure Plan) has been approved in the 467th CCL Board meeting held on 19.12.2018.

x. The land use of the project is as follows:

Pre-mining Land Use:

Description	Forest in Ha	GMK JJ in Ha	Non Forest (Tenancy+ GMK) Ha	Total Area in Ha.
Quarry	43.95	75.34	135.11	254.4
External OB dump	12.47	72.56	83.91	168.95
Safety Zone	1.26	13.60	40.02	54.87
Haul road		2.8	1.70	4.5
Industrial construction	-	4.53	16.89	21.42
Total Project Area	-	-	-	504.14
Colony area	-	-	18.92	18.92
Total Land	57.68	168.83	296.55	523.06

Post-Mining Land Use:

Description	Plantation	Water body	Public Use	Un-disturbed	Total Area in Ha.
Quarry	182.40	72	0	0	254.4
External OB dump	168.95	0	0	0	168.95
Safety Zone	54.87	0	0	0	54.87
Haul road	4.5	0	0	0	4.5
Industrial construction	0	0	21.42	0	21.42
Total project area	410.72	72	21.42	0	504.14

Colony area	0	0	18.92	0	18.92
Total Area	410.72	72	40.34	0	523.06

- xi. As per the approved Mining Plan, total geological reserve reported in the mine lease area is 139.38 MT with 80.81 MT mineable reserve. Out of the total mineable reserve of 80.81 MT, 80.81 MT are available for extraction. Percent of extraction is 100 %.
- xii. 15 seams with thickness ranging from 0.27 meter to 22.60 meter are workable. Grade of coal is G-8. Stripping ratio is 1.69 while gradient is 8 degree to 35 degree.
- xiii. Method of mining operation is by open-cast mining using shovel dumper mining system and surface miner.
- xiv. Life of mine is 22 years
- xv. The project has 1 external OB dump in an area of 168.95 ha with 75 m height and 59.60 Mm³ of OB. 1 internal OB dump in an area of 182.40 ha with 77 Mm³ of OB is envisaged in the project.
- xvi. Total quarry area is 254.40 ha out of which backfilling will be done in 182.40 Ha area. Final mine void will be created in an area of 72 Ha with depth of 60-140 m. Backfilled quarry area of 182.40 Ha shall be reclaimed with plantation. Final mine void will be converted into a water body.
- xvii. Transportation of coal has been proposed by tipping trucks from mine pit head, from surface to siding at present by covered tipping trucks and at sidings by payloaders. A proposal for the construction of ‘North Urimari Railway siding’ is under process. RITES has started the work of Railway Siding. The coal shall be transported from the said siding after its completion.
- xviii. Reclamation Plan in an area of 410.72 Ha comprising of 182.40 Ha of internal dump, 168.95 Ha of external dump and 54.87 Ha of green belt and safety zone. In addition to this, an area of 4.5 ha, included for Haul Road, has also been proposed for green belt development.
- xix. 226.51 ha of forest land has been reported to be involved in the project. Total Forest land involved in project area, 226.51 Ha. has been diverted (Stage II) vide letter no: F. No. 8-54/2008-FC Dt. 03.08.2011.
- xx. No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones fall within 10 km boundary of the project.
- xxi. Wildlife conservation plan for schedule – I species i.e Peafowl has been submitted to DFO Hazaribagh (W)
- xxii. The ground water level has been reported to be varying between 5.3-8.7 m (Pre monsoon) and 2.18-6.74m (Post monsoon). Total water requirement for the project is 1009 KLD.
- xxiii. NOC of the Central Ground Water Authority has been issued vide no: CGWA/NOC/MIN/ORIG/2021/14192 Dated: 30.12.2021.
- xxiv. Public hearing for the project of 3 MTPA capacity was conducted on 08.10.2004 at Guest House, Urimari Project, Post- Sayal D, District- Hazaribagh. Major issues raised in the public hearing included impact due to possible water and air pollution and compensation to the affected PAPs etc. Appropriate actions to address the issues raised in the Public Hearing have already been taken.
- xxv. Hearing have already been taken/proposed to be taken are as under: Not Applicable

- xxvi. Renewal Consent to Operate for the existing capacity of 3.6 MTY was obtained from the Jharkhand State Pollution Control Board (JSPCB) on 01.01.2023 and is valid up to 30.06.2023.
- xxvii. Damodar River is flowing in the south of the block. There are two seasonal tributaries that flows near the North Urimari project i.e. Potanga stream and Tilaiya stream. The opencast project was divided in two quarries by Potanga stream flowing across the project from north to south. Whereas, Tilaiya stream flows from north to south in the west of the project and discharge its load into Damodar river.
- xxviii. Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to JSPCB & MOEF&C with six monthly compliance report. In general, the results of ambient air quality monitoring data were found within prescribed limits except few aberrations which can be attributed to the specific local conditions during the day of sampling.
- xxix. No court cases, violation cases are pending against the project.
- xxx. The project does not involve violation of the EIA Notification, 2006 and amendment issued there under. No excess production of coal from the sanctioned capacity has been realized since the commencement of mining operations.
- xxxi. The project involves 515 project affected families. R&R of the PAPs will be done as Per as per R&R Policy of CIL.
- xxxii. Total cost of the project is Rs. 232.90 Crores. Cost of production is Rs. 1007/Tonne. The fund for the CSR should be allocated based on 2% of the average net profit of the Company for the three immediately preceding financial years. Environment Management cost is Rs. 57.27 Crores (Capital).
- xxxiii. Renewal Consent to Operate for the existing capacity of 3.6 MTY was obtained from the Jharkhand State Pollution Control Board (JSPCB) on 01.01.2023 and is valid up to 30.06.2023.
- xxxiv. Past Production details comparison with existing EC

Year	Production in Mte	EC granted for in MTPA
2011-12	0.339	3.0
2012-13	0.372	3.0
2013-14	0.154	3.0
2014-15	0.503	3.0
2015-16	0.780	3.0
2016-17	0.813	3.0
2017-18	1.727	3.0
2018-19	2.967	3.0
2019-20	2.823	3.0
2020-21	2.651	3.0
2021-22	3.590	3.6
2022-23 (Till 31.12.2022)	3.150	3.6

39.1.3 The EAC during deliberations noted the Status of OM dated 11th April 2022 for expansion of North Urimari OCP from 3.6 MTPA to 4.2 MTPA are as follows:

Sl. No.	Condition as per OM	Compliance
(i)	The project should have gone through the public hearing process, at least once, for its existing EC capacity on which expansion is being sought, except those categories of projects which have been exempted as per para 7 III (i) of EIA Notification 2006 and its amendments.	Public Hearing held on 08.10.2004 for grant of EC for production capacity of 3.0 MTPA. Public notice(s) published in three newspapers i.e. The Times of India, Dainik Jagran and Dainik Bhaskar on 07/08/2018 during revalidation of EC. Subsequently, 20% expansion from 3.0 MTPA to 3.6 MTPA was obtained under 7(ii) of EIA Notification, 2006. The present proposal falls under capacity expansion from 20% to 40% i.e. from 3.6 MTPA to 4.2 MTPA within the same project area. (40 % in the 2 nd Phase over original EC of 3 MTPA)
(ii)	There should not be change in Category of the project from 'B2' to 'B1' or 'A' due to proposed modernization or expansion.	There is no change in the category of the project, (Category A project).
(iii)	There is no additional land acquisition or forest land diversion involved for the proposed expansion or there is no increase in lease area with regard to mining vis-a-vis the area mentioned in the EC, based on which public hearing has been held earlier.	There is no additional land acquisition or increase in land area.
(iv)	The proposed expansion shall not be more than 50% of production capacity as mentioned in the prior EC, issued on the basis of public hearing held and the same shall be allowed in minimum three phases.	The proposal is regarding expansion in production capacity from 3.6 MTPA(20%) to 4.2 MTPA (40%) (40 % in the 2 nd Phase over original EC of 3 MTPA) within the same project area of 523.06Ha.
(v)	Predicted environmental quality parameters arising out of proposed expansion / modernization shall be within the prescribed norms and the same shall be maintained as per prescribed norms.	The predicted environmental qualities of parameters arising out of proposed capacity are within the prescribed norms as detailed in EIA EMP report.
(vi)	The proposed expansion should not result in reduction in the greenbelt area as stipulated in the earlier EC, or if the existing ratio of greenbelt is more than 33%, after expansion it should not reduce below 33%.	The proposed expansion does not result in reduction of greenbelt area as stipulated in earlier EC. The proposed green belt area/ area to be brought under the plantation at the end of mining remains the same.

Sl. No.	Condition as per OM	Compliance
(vii)	The project proponent should have satisfactorily complied the conditions stipulated in the existing EC(s) and satisfactorily fulfilled all the commitments made during the earlier public hearing/consultation proceedings and also the commitments given while granting previous expansion, as may be applicable. This shall be duly recorded in the certified compliance report issued by the IRO/CPCB/SPCB, which should not be more than one year old at the time of submission of application.	Site inspection for monitoring of compliance status of EC conditions (for 3.6 MTPA) was carried out by the IRO, MoEF&CC on 31.08.2022 and communicated vide letter no: 103-586/IRO-2022/543 Dated 12.09.2022 and same has been enclosed.
(viii)	Public Consultation shall be undertaken [if applicable as per table below] by obtaining response in writing, as per para 7 III (ii) (b) of EIA Notification 2006, except those categories of projects which have been exempted as per para 7 III (i) of EIA Notification 2006 and its amendments.	Not applicable.
(ix)	Effluent monitoring including air quality monitoring systems as specified in the existing EC, if stipulated, should have been installed.	CAAQMS and PM10 Analyser are installed at project for monitoring of air quality. Also, routine monitoring, in respect of ambient air quality, water quality(surface water, effluent water and ground water) are regularly being undertaken at project level.

39.1.4 The EAC after detail deliberation noted the following:

- i. The Project proponent has obtained the following environmental clearances vide letter no. J-11015/10/1995-IA. II (M):
 - a) First EC issued vide letter dated 08.02.2006 for production capacity of 3 MTPA in the Mine Lease area of 516.90 ha under EIA Notification, 1994.
 - b) Later, this EC was revalidated vide letter dated 07.11.2019 for the production capacity of 3 MTPA in the Mine lease area of 516.90 ha (Total area: 535.82 Ha) under EIA Notification, 2006.
 - c) The EC issued vide letter dated 18.02.2022 for increase in production capacity from 3 to 3.6 MTPA (i.e. increase in 20% production capacity) in the MLA of 535.82 ha under clause 7(ii) of EIA notification 2006 as per OM dated 15.09.2017.
- ii. The stage II Forest Clearance has been obtained vide letter no. F. No. 8-54/2008-FC dated 03.08.2011 for the forest land of 226.51 ha out of the total mine lease area of 535.82 ha.

- iii. The Wildlife conservation plan for schedule - I species i.e. peafowl was made and submitted to DFO for approval from competent authority on 15.01.2022 and again on 29.08.2022.
- iv. The project proponent has obtained the NOC from the Central Ground Water Authority vide letter number CGWA /NOC/ MIN /ORIG/2021/14192 which is valid upto 29.12.2023.
- v. The project proponent conducted the Public hearing on 08.10.2004 for production capacity of 3 MTPA. The major issues were raised during the public hearing include water and air pollution due to mining and compensation to the affected persons.
- vi. The Consent to operate for the existing capacity has been obtained from the Jharkhand State PCB on 01.01.2023 and same is valid till 30.06.2023.
- vii. The Certified compliance report has been obtained by IRO vide letter dated 12.09.2022.
- viii. PP has obtained the amendment in EC for North Urimari OCP (3 to 3.6 MTPA) to implement the work of North Urimari Railway siding, Belt conveyor system with CHP & Silo loading system and to implement in-pit conveyor system with silo loading facility till railway siding on or before July, 2023.
- ix. The PP submitted the following undertaking vide letter dated 13.01.2023
 - a. North Urimari Railway siding will be operational by May-2023. Accordingly, coal transportation from North Urimari OCP to Saunda B Siding will not be undertaken after May-2023.
 - b. Work of Belt conveyor system with CHP and Silo loading system will be completed by July-2023.

39.1.5 *The EAC after deliberation observed that instant project is for expansion and PP had already obtained Stage-I expansion (20%) from 3.0 to 3.6 MTPA vide letter dated 18.02.2022 under MoEF&CC's OM dated 15.09.2017. Now, PP has applied for enhancement of total 40% capacity from 3.6 to 4.2 MTPA under para 7(ii) of EIA Notification, 2006 under OM dated 11.04.2022. The EAC observed that project proponent had shown the photographs of the work in progress and committed to complete the work of North Urimari Railway siding by May 2023 and Belt conveyor system with CHP and Silo loading system by July 2023 with an undertaking. The EAC emphasized that no road transportation will be allowed after beyond July, 2023. The EAC vide letter dated 19.01.2023 confirmed that the North Urimari OCP falling outside the boundary of Severely Polluted Area (SPA) of Morangi (Hazaribag).*

The EAC discussed the compliance of OM dated 11.04.2022 and found satisfactory compliance. Since important condition of implementation of belt conveyor system is still pending on which PP has obtained amendment/extension of time therefore, EAC mandatorily emphasized that SPCB may grant CTO accordingly. During the course of discussion EAC also emphasized to complete the work of sewage treatment plant(STP) for existing 5 colonies within the periphery of 5 Km and PP has to obtain the CTO for STP separately. In view to protect the agriculture land nearby area from dust as observed from KML file, EAC emphasized to provide temporary wind barrier arrangement within a month to save the habitation and agricultural fields. The temporary wind barrier shields to be converted into Reinforced Cement Concrete (RCC) wall before July, 2023 and subsequently send photographs and status to IRO, MoEF&CC after every month.

Based on the above discussion, EAC **recommended** the proposal for expansion of North Urimari OCP from production capacity 3.6 to 4.2 MTPA (Stage II) under Ministry's OM dated 11.04.2022 in total Mine lease area of 535.82 ha of M/s Central Coalfield Limited located in village Urimari, Tehsil Barkagaon, District Hazaribagh (Jharkhand) and its amendments therein with following additional specific conditions to be followed:

- i. PP shall obtain the CTO for the production capacity upto 4.2 MTPA.
- ii. PP to complete the work of North Urimari Railway siding and Belt conveyor system with CHP and Silo loading system upto July 2023. No road transportation shall be allowed beyond July 2023. SPCB shall accordingly grant the CTO for the proposed expansion.
- iii. PP to complete the work of STPs for existing 5 colonies and should commission it by December 2024. PP also to obtain the CTO separately for sewage treatment plant(STP) lie within the mining lease periphery of 5 KM.
- iv. PP shall submit the photographs to IRO, MoEF&CC for implementation of temporary wind barrier shield at CHP and silo points within a month and same to be converted into permanent barrier with wall of adequate height before July, 2023.
- v. PP shall create a **“Public Grievance Redressal and Monitoring System”** for resolving any issues related to the pollution of mines and complaint has to resolve as soon as possible not beyond 30 days. In this regard, adequate awareness to be spread among the public to address their grievance to company with simple and easy manner and for which company needs to devise the mechanism. The same shall be reported to IRO within 3 months. A log book to be maintained by PP on **“Public Grievance Redressal and Monitoring System**.
- vi. Top soil should be stored separately at marked area for spreading over the reclaimed dumps (both internal & external) and necessary vegetation shall be maintained to avoid any entrainment of dust.
- vii. Mining of coal 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.
- viii. PP to install 1 more continuous ambient air quality monitoring stations at suitable locations preferably village side and with consultation of SPCB. The real time data so generated shall be uploaded on company website. In addition, data should also be displayed digitally at entry and exit gate of mine lease area for public display.
- ix. PP shall submit the status of expenditure plan for the already allocated Public Hearing Budget including the amount that has been spent already or going to spend in future.
- x. PP should Install Wind breaker/shield arrangement along the railway siding for reducing the dust propagation in upwind direction.
- xi. PP shall install fixed fog cannon (mist sprayer) all along the haul road till CHP, Railway siding and OB Dump area and accordingly sufficient number of fog cannons (not less than 10 nos.) with 40 mts jet length shall be installed within 6 months. It should be ensured that air pollution level confirm to the standards prescribed by the MOEFCC/CPCB.
- xii. PP to develop an ECO park with separate area of 5 ha for medicinal and herbal species within two years.

- xiii. *Progressive backfilling of mine and progressive reclamation by conducting tree plantation of OB dump shall be done.*
- xiv. *Hon'ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs Union of India & Ors vide its judgement dated 8th January, 2020 has directed the Union of India to impose a condition in the mining lease and a similar condition in the environmental clearance and the mining plan to the effect that the mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. Compliance of this condition after the mining activity is over at the cost of the mining lease holders/Project Proponent". The implementation report of the above said condition shall be sent to the Regional Office of the MoEFCC.*

Agenda No. 39.2

Giddi Opencast Project of production capacity 1 MTPA (Peak) of M/s Central Coalfields Limited in the Mine lease area of 187.98 ha located at Argada Area of Central Coalfields Limited, Dadi CD block, District Hazaribag (Jharkhand) – Reconsideration for Environmental Clearance (Under Violation category) –reg. [Online proposal No. IA/JH/CMIN/74323/2018; File No. 23-245/2018 (III) V]

39.2.1 The Proposal is for Environmental Clearance (Under Violation category) for Giddi Opencast Project with production capacity of 1 MTPA (Peak) of M/s Central Coalfields Limited in the Mine lease area of 187.98 ha located at Argada Area of Central Coalfields Limited, Dadi CD block, District Hazaribag (Jharkhand).

39.2.2 The proposal was earlier considered in the 30th Meeting of the expert appraisal committee wherein the committee after detail deliberation deferred the proposal for further compliance. Therefore the project proponent has submitted the following information vide letter dated 17.12.2022:

Sr. No.	Observation of EAC	Reply of Project Proponent
1	PP to submit clarification of forest land in project area and certification from forest department with map showing the area	Letter issued by DFO (Ramgarh Division) is enclosed at Enclosure-I which states that 73.94 Ha for forest land, which is part of 232.42 Ha of forest land, falls within the project boundary of Giddi A OCP that is 187.98 Ha
2	PP shall submit legal undertaking stating that no mining activity will be carried out in the forest area until Stage – II clearance is obtained	Legal Undertaking of Project Officer, Giddi A OCP stating that no mining activity will be carried out in the forest area until Stage–II clearance is submitted and Enclosed.
3	PP shall submit additional details of action plan to be complied as framed by SPCB for severally polluted area	Jharkhand State Pollution Control Board (JSPCB) has been requested vide letter no: PO/GDA/EAC/2022/315 Dated: 24.06.2022 for

	or get it certified that instant project lies outside of SPA boundary based on vetting of Member Secretary-SPCB.	providing details of action plan to be complied as framed by SPCB for severely polluted area or to certify that the said project lies outside the SPA boundary. The letter is attached at Enclosure-III. 2. However, till date the said action plan of Severely polluted area has not been finalized. The said action plans are also not available on CPCB website. The corresponding page of web-site of CPCB is also enclosed at Enclosure-IV. 3. Programme for Pollution control management has been mentioned in EIA/EMP of Giddi A OCP. Proposal may kindly be considered as per OM dated 05.07.2022 vide F. No. 22-23/2018-IA.III [E 115231.
4	Proof of Credible action taken by State Government shall be submitted.	1. Jharkhand State Pollution Control Board (JSPCB) has been requested vide letter no: HOD/(Env.)/2021/1152 Dated: 29.11.2021 for taking necessary action in this regard. The Letter is attached at Enclosure-V. 2. Member Secretary, JSPCB has directed concerned Regional Officer of JSPCB Hazaribagh to take credible action against projects of CCL including Giddi A OCP. The direction of Member Secretary JSPCB is submitted and Enclosed.
5	PP shall modify the mine plan and mine closure plan as desired by EAC regarding OB dump to be disposal in nearby mine void.	1. The mine plan & mine closure plan of Giddi A OCP was approved in the 507th CCL Board meeting held on 23.09.2021. 2. In line with direction of EAC, the dumping strategy was revised and accordingly, CCL Board was informed in the 516th meeting held on 04.07.2022. The copy of approval is submitted and Enclosed.
6	Protection measures for the streams/nallahs from the lease area to Damodar river. The PP must take inputs by other consultant (third party) regarding the river conservation plan of Damodar River all along the mine lease boundary.	Work order has been awarded on 18.10.2022 to Central University of Jharkhand to carry out the assessment of the impact of mining operation in nearby eco-system of South Karanpura Coalfields, Damodar River Basin, Jharkhand at a cost of Rs 48,73,600/- for a duration of seven (07) months. The copy of work order is submitted and Enclosed.
7	PP shall submit plan for operation of integrated solid waste management from the Giddi A OCP colony.	Work order has been awarded to CMPDI on 12.12.2022 for the work of solid waste management at Giddi A OCP, Argada Area. The copy of work order is submitted and Enclosed.

8	PP shall submit the proof of its online data linked with CPCB and SPCB of CAAQMS	Continuous Ambient Air Quality Monitoring Station has been installed in the buffer zone of Giddi A OCP. The photographs & online data linked with Jharkhand SPCB is submitted and Enclosed.
9	PP shall plan with timeline to install piezometer for monitoring of ground water.	Tender for construction of 10 number of Piezometers in Argada Area (Administrative area of Giddi A OCP) has been floated on 27.08.2022. Work order will be awarded by 15th Jan 2023. The copy of NIT is enclosed. The plan & timeline for installation of piezometers is submitted and Enclosed.

39.2.3 The EAC during the deliberation noted the following:

- i. TOR to this project was granted under violation category for 1.0 MTPA vide letter no F.N-23-245/2018-IA (III) (V) dated 25.09.2019 from MOEF&CC.
- ii. The PP has conducted the Public Hearing on 26.10.2021 as per the EIA Notification 2006.
- iii. The PP has obtained the CTO issued by Jharkhand State PCB on 29.08.2022, which is valid upto 31.03.2023.
- iv. The PP has obtained the NOC from the Central Ground Water Authority vide letter no CGWA/NOC/MIN/ORIG/2021/13941 dated 03.12.2021.
- v. The PP has obtained the Stage I forest clearance for forest land of 232.42 ha vide MoEF&CC letter No. 8-73/2003-FC dated 08.06.2004. Stage-II forest clearance is under process.
- vi. PP has submitted a letter by DFO (Ramgarh Division), which states that 73.94 Ha for forest land is part of 232.42 Ha of forest land, which falls within the project boundary of Giddi A OCP i.e. 187.98 Ha
- vii. The PP has submitted that 73.94 Ha of forest land present within the Mine lease area which is part of 232.42 Ha of forest land.

39.2.4 *The EAC, after deliberation noted that the projects fall under violation category as per the Ministry's Notification dated 14th March, 2017 and TOR was issued under said Notification. The Committee noted that the Project Proponent had submitted the revised damage assessment cost as suggested by EAC in last EAC meeting and; accordingly, PP has proposed the cost for Remediation Plan, Natural Resource Augmentation Plan and Community Resource Augmentation Plan, which found to be adequate. The already submitted revised estimated cost for Remediation Plan Rs. 759.8 Lakh, Natural Resources Augmentation Plan Rs. 2 Lakh and Community Resources Augmentation Plan Rs. 90 Lakh.*

During the course of discussion, EAC noted that there are 3 big water bodies with cluster of other water ponds present within as well as adjacent to the mine lease area. EAC emphasized to use the water from the water bodies after treatment for different mining purposes as well as for the nearby villagers. EAC desired that the mine dump site should be at least 50 m away from the periphery of all

available water bodies. Proper garland drain and retaining wall should be made (if required) and same should be revived from time to time. EAC also emphasized to complete the integrated solid waste management from the Giddi A OCP colony area till October, 2023. CAAQMS should be installed separately for Giddi A OCP and submit a report to IRO. Tender for construction of piezometer for monitoring of ground water in Argada Area (Administrative area of Giddi A OCP) has been floated and monthly report with the photographs for the work should be submitted to IRO.

Based on documents submitted by PP, EAC **recommended** the proposal for EC under violation category to Giddi Opencast Project of production capacity 1 MTPA (Peak) of M/s Central Coalfields Limited in the Mine lease area of 187.98 ha located at Argada Area of Central Coalfields Limited, Dadi CD block, District Hazaribag (Jharkhand) under EIA Notification, 2006 and subsequent amendments/circulars thereto subject to decision on SCN by MoEF&CC along with the compliance of the following terms & conditions / specific conditions for environmental safeguards:

- (i) EAC recommended an amount of Rs. 759.8 Lakh towards Remediation plan and Rs 92 Lakh towards Natural and Community Resource Augmentation plan, which should be spent within a span of 2 years.
- (ii) The details of Remediation plan, Natural resource Augmentation plan and Community Resource Augmentation plan with budgetary provision are mention in the tabular form below:

Budgetary Provisions for Damage Remediation Plan

Remediation plan & budgetary provisions				Action Plan		
Sl		Activity Proposed	Total	Year 01	Year 02	Year 03
1	Water Environment	Construction & installation of RO Plants (12 nos.) for supply of treated drinking water at 4 Revenue villages namely: Giddi 'Ka', Giddi 'Kha', Giddi 'Ga' and Kanki Panchayat with annual maintenance contract.	30,000,000	0	15,000,000	15,000,000
2		Deepening and pitch bouldering of existing pond in Tehratand village	4,000,000	0	2,000,000	2,000,000
3		Additional Water Sampling for analysis of Ground water at 3 locations namely Tehratand village, Kurkutta village and Kendiya village @ once in a quarter	350,000	116,667	116,667	116,667
4		Renovation of ghat (Steps) along River Damodar at Shiv Mandir and beautification by Avenue plantation	3,600,000	0	1,800,000	1,800,000
Total Water Environment			₹ 3,63,50,000	₹ 1,16,667	₹ 1,89,16,667	₹ 1,89,16,667
1	Ecology	Distribution of 10,000 Fruit bearing plants in nearby villages viz. Jamuna Tola, Kurkutta, Tehratand, Kalai Tola, Giddi Basti etc.,	1,500,000	7,50,000	7,50,000	0
Total Ecological Environment			₹ 1,500,000	₹ 7,50,000	₹ 7,50,000	0

1	Air & Noise Environment	Additional Health Camps to monitor the respiratory and E&T health status of nearby villages. 1. Diabetic Camp (Quarterly) 2. Hypertension Camp (Quarterly) 3. Cancer Detection Camp (Quarterly) 4. Anaemia Detection Camp (Quarterly) 5. Cataract Detection and Treatment (Quarterly)	4,680,000	1,560,000	1,560,000	1,560,000
2		Additional avenue Plantation (2.1 Km) along with gabions and maintenance in subsequent years on village road connecting Giddi Basti and Project	4,000,000	1,500,000	1,500,000	1,000,000
Total Air Environment			₹ 86,80,000	₹ 30,60,000	₹ 30,60,000	₹ 25,60,000

Remediation plan & budgetary provisions				Action Plan		
SI NO		Activity Proposed	Total (₹)	Year 01	Year 02	Year 03
1	Land Environment	Providing colour coded bins in schools & hospitals in nearby villages	500,000	500,000	0	0
Total Land Environment			₹ 500,000	₹ 500,000	0	0
1	Socio-Economic	Skill development training programme for Motor Driving and Sewing to approx. 100 persons/year	2,000,000	666,667	666,667	666,667
2		Construction of 04 no. of toilet at Tehratand Community Hall	2,000,000	1,000,000	1,000,000	-
3		Organizing Football & Volleyball events	1,800,000	600,000	600,000	600,000
4		Construction of 2 nos. Community halls (20 m X 50 m) at Giddi Ka Panchayat (Kali Mandir Ground) & Giddi Kha Panchayat (Near Hanuman Chowk)	15,000,000	-	7,500,000	7,500,000

5		Providing Computers at Madhya Vidyalay & Shramik Uchh Vidyalay Giddi 'Ka', Balika Vidyalay Giddi 'Kha', Saraswati Sishu Vidya Mandir Giddi 'Ga', Saraswati Vidya Mandir Officers Colony (Total 35 nos)	1,050,000	525,000	525,000	-
6		Construction of Boundary wall at Sishu Vidya Mandir (900 ft Length and 6 ft Height)	5,000,000	-	2,500,000	2,500,000
7		Additional awareness programs on Environmental protection	500,000	166,667	166,667	166,667
Total Socio-Economic Environment			₹ 27,350,000	₹ 29,58,333	₹ 1,29,58,333	₹ 1,14,33,333
Total Fund for remediation measures			₹ 7,59,80,000	₹ 73,85,001	₹ 3,56,85,001	₹ 3,29,09,998

Budgetary provisions for Natural and Community Resource Augmentation Plan

S.N.	Head	Activity Proposed	Total (₹)	Action Plan		
				Year 01 (₹)	Year 02 (₹)	Year 03 (₹)
1	Natural Resource Augmentation	Renovation of 4 no. of wells at Giddi 'Kha' Panchayat	200000	200,000	-	-
2	Community Resource Augmentation Plan	Providing solar lamps (50 Watt) for street lighting at 5 Revenue Villages (100 Nos Approx.)	1500000	500,000	500,000	500,000
3		Arrangement of smart classes at nearby schools of Giddi A OCP	1500000	500,000	500,000	500,000
4		Construction of RWH at 4 no. of schools in adjacent villages	4000000	2,000,000	2,000,000	-
5		Construction of Shelter at Samshan Ghat	2000000	-	2,000,000	-
Total Fund for Natural & Community Resource Augmentation Plan (NCRAP)			₹ 92,00,000	32,00,000	50,00,000	10,00,000

- (iii) Remediation plan shall be completed within two years from date of issue of EC only whereas bank guarantee shall be for 3 years. The bank guarantee will be released after successful implementation of the remediation plan and Natural and Community Resource Augmentation Plan, and after the recommendation by regional office of the Ministry, Expert Appraisal Committee and approval of the Regulatory Authority.
- (iv) Any connected proposal of expansion/amalgamation of this mine with others mines shall only be considered after 75% compliance of existing EC conditions along with compliance of Remediation plan and Natural & Community Resource Augmentation plan for amount Rs. 851.8 lakhs are accomplished.
- (v) PP shall implement in-pit conveyor system with silo loading facility till railway siding and No road transportation shall be allowed.
- (vi) PP to submit the tree implementation plan along the internal /approach road side of transportation route including mine periphery area within 2 months from date of issue of EC to IRO, MoEF&CC. A detailed report with GIS images of every 3 months subsequently be submitted in every six monthly report to justify the adequate tree plantation.
- (vii) Approval/permission of the CGWA/SGWA shall be obtained before drawing ground water for the project activities, if applicable. State Pollution Control Board (SPCB) concerned shall not issue Consent to Operate (CTO) till the project proponent obtains such permission.
- (viii) The Environmental Clearance will not be operational till such time the Project Proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
- (ix) State Government concerned shall ensure that mining operation shall not commence till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No.114 of 2014 in the matter of Common Cause versus Union of India and Ors.
- (x) PP shall engage third party independent expert agency for monitoring/auditing of compliance of EC conditions every year.
- (xi) No village road shall be used for transportation of coal and no road transport route shall be adopted, which is passing through any sensitive location such as schools, hospitals etc. PP shall take legal undertaking from its consumers accordingly.
- (xii) Effective dust suppression system shall be adopted at the transportation site and in the other parts of the mining lease to arrest the fugitive dust emission.
- (xiii) Project proponent shall take necessary other clearances/permissions under various Acts and Rules if any, from the respective authorities / department.
- (xiv) PP shall install CAQMS for air monitoring and online water quality monitoring system for checking the quality of mine water and display outside main gate of colliery before discharge from its settling pond.
- (xv) In pursuance to the Ministry's OM dated 30.09.2020, Project Proponent shall take up the activities for community development under EMP.

- (xvi) *PP must obtain 4.5-star rating of MoC in the year 2024-25 and report shall be submitted to IRO.*
- (xvii) *Periodical health check-up shall be conducted to monitor the impact of heavy metals present in core zone & buffer zone air quality and also to prepare an action plan to reduce heavy metals concentration and also report to be submitted to concerned regional office of MoEF&CC.*
- (xviii) *Hon'ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs Union of India & Ors vide its judgement dated 8th January, 2020 directed the Union of India to impose a condition in the mining lease and a similar condition in the environmental clearance and the mining plan to the effect that the mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. Compliance of this condition after the mining activity is over at the cost of the mining lease holders/Project Proponent”.*
- (xix) *The implementation report of the above said condition shall be sent to the Regional Office of the MoEF&CC.*

Agenda No. 39.3

Expansion of Jayant Opencast Project in Singrauli Coalfield from 25 MTPA to 30 MTPA in Project Area of 3177.171 Ha by M/s Northern Coalfields Limited located at village Garda, District Singrauli, Madhya Pradesh - For Environmental Clearance under Ministry's OM dated 11.04.2022 (Stage I - 20% expansion) [Online Proposal No. IA/MP/CMIN/413091/2023; File No. J-11015/12/2017-IA.II (M)]

39.3.1 The Proposal for Environmental Clearance under Ministry's OM dated 11.04.2022 (Stage I) for expansion of Jayant Opencast Project in Singrauli Coalfield from 25 MTPA to 30 MTPA in Project Area of 3177.171 Ha by M/s Northern Coalfields Limited located at village Garda, District Singrauli, Madhya Pradesh.

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

- (i) The project area is covered under Survey of India Topo Sheet No. 63-L /12 and is bounded by geographical coordinates ranging from Latitudes 24°6'26.08" North to 24°11'40.86" North and Longitudes 82°38'2.01" East to 82°40'55.64" East.
- (ii) Coal linkage of the project is for Singrauli Super thermal power station (SSTPS) (2000 MW) of NTPC and other thermal power stations of the nation and other consumers to meet the overall demand of power grade coal on NCL.
- (iii) Joint venture cartel has not been formed.
- (iv) Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC's vide its OM dated 13th January, 2010 has imposed moratorium on grant of environment clearance.
- (v) Employment generation, 2690 nos. of permanent employment as per EPR 2016.

- (vi) The project is reported to be beneficial in terms of supply planned quantity of coal to Singrauli Super Thermal Power Station (SSTPS) (2000 MW) of NTPC through MGR system, other thermal power stations of the nation and other consumers by rail mode, thus meeting the energy requirement of the country. It will also enhance the socio-economic activities in the adjoining area.
- (vii) Earlier, the environment clearance to the project was obtained under EIA Notification, 2006 vide Ministry's letter No J-11015/12/2017-IA.II(M) date 29.08.2018 for 25 MTPA in mine lease area of 3177.171 ha.
- (viii) Terms of Reference granted on – (for EC proposals)- Not Applicable, as present proposal submitted under 7(ii) under Ministry's OM dated 11.04.2022.
- (ix) Total mining lease area as per block allotment is 3177.171 Ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved by the NCL Board on 31.10.2021.
- (x) The land usage pattern of the project is as follows:

Pre-mining land use details

S. No.	Land Use	Within ML Area (Ha)	Outside ML area (Ha)	Total (Ha)
1	Agricultural land (Tenancy Land)	1481.540	Nil	1481.540
2	Forest Land	1180.171	Nil	1180.171
3	Wasteland	-	Nil	0
4	Grazing land	-	Nil	0
5	Surface water bodies	-	Nil	0
6	Settlements	-	Nil	0
7	Others (Government land)	515.460	Nil	515.460
Total		3177.171	Nil	3177.171

Post- Mining:

S. No.	Land use during Mining	Land Use (ha)				
		Plantation	Water Body	Public Use	Undisturbed	TOTAL
1	External OB dump	118.650	-	-	-	118.650
2	Top soil dump	Top soil will be completely used in reclamation of dumps.				
3	Excavation	1589.000	251.0	-	-	1840.000
4	Roads & railway	96.750	-	-	-	96.750
5	Built up areas (Infrastructure & colony)	178.750	-	261.900	-	440.650
6	Green belt	93.300	-	-	-	93.300
7	Undisturbed Area	625.371	59.200	-	-	684.571

(Safety Zone, Wasteland, Vacant land and Mudwani Dam)					
Total	2605.071	310.20	261.900	-	3177.171

- (xi) Total geological reserve reported in the mine lease area 367.59 MT (Balance as on 01.04.2014 as per EPR 2016) with 339.86 MT (Balance as on 01.04.2014 as per EPR 2016) mineable reserve and 223.78 MT (Balance as on 01.04.2021 as per Mining Plan 2021). Percent of extraction is 92.54 %.
- (xii) Three number of seams namely Purewa Top (with thickness ranging from 4 m to 13.07m), Purewa Bottom (with thickness ranging from 3.4 m to 15.17m) and Turra (with thickness ranging from 11.9 m to 21.65 m) are workable. Grade of coal is G-10 (Average Grade), stripping ratio 3.06 m³/t, while gradient is 2 to 4 degree.
- (xiii) Method of mining operations envisages by ‘combined mining system deploying dragline and shovel dumper combination and Surface Miner’ method.
- (xiv) Life of mine is 8 years from 01.04.2022.
- (xv) The project has 2 number of external OB dumps in an area of 118.65 ha with 90 m height and 60 Mm³ of OB filled till 31.03.2022, 2 number of internal OB dumps in an area of 1589.0 ha with 1809.72 Mm³ of OB is envisaged in the project.
- (xvi) Total quarry area is 1840 ha out of which backfilling will be done in 1589 ha while final mine void will be created in an area of 251 ha with a depth of 30 m to 40 m. Backfilled quarry area of 1589 ha shall be reclaimed with plantation. Final mine void will be converted into a water body.
- (xvii) Transportation of coal has been proposed by dumpers in mine pit head, from surface to SILO by Closed Conveyor Belt System through CHP and from SILO by MGR through automatic RLS (Rapid Loading System).
- (xviii) Reclamation Plan in an area of 2605.071 ha, comprising of 118.65 ha of external dump, 1589 ha of internal dump and 897.421 ha of green belt will be planted and 251 Ha of hydro reclamation.
- (xix) 1180.171 ha of forest land has been reported to be involved in the project. Approval under the Forest (Conservation) Act, 1980 for diversion of 237.171 ha of forest land for non-forestry purposes has been obtained [vide MoEF&CC letter no vide No. 8-67/2002-FC(Pt.) dated 06.02.2018 (Stage II FC) for 100 Ha, vide No. 8-158/90-FC dated 16.01.1997. (Stage II FC) for 68.29 ha, vide No. 8-93/99-FC dated 25.01.2000. (Stage II FC) for 50.881 ha and vide No 8-26/2015-FC dated 13.09.2017(Stage II FC) for 18.00 ha] and 943.00 ha Forest land was notified under Coal Bearing Areas (Acquisition & Development) Act, 1957 (SO no 5136 dated 15.11.1975 for 445 Ha, vide SO no 4413 dated 04.11.1976 for 339 Ha, vide SO no 3456 dated 15.11.1978 for 143 Ha, vide DM/40961 dated 31.12.1975 for 16 Ha) and broken before enactment of Forest (Conservation) Act, 1980.
- (xx) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones fall within 10 km boundary of the project.

- (xxi) Wildlife conservation plan for schedule-I species has been submitted to :- Not Applicable.
- (xxii) The ground water level has been reported to be varying between 3.40 m to 6.68 m during pre-monsoon and between 1.85 m to 5.52 m during post-monsoon. Total water requirement for the project is 11654 KLD.
- (xxiii) Approval of the Central Ground Water Authority for ground water clearance for Jayant OCP, has been obtained vide no CGWA/NOC/MIN/ORIG/2021/12798 has been obtained on 01.09.2021.
- (xxiv) Public hearing for the project of 25.00 MTPA capacity in an area of 3177.171 ha was conducted on 13.12.2017 at Officer's club, Jayant Project under the Chairmanship of the DM, Singrauli. Major issues raised in the public hearing included rehabilitation & employment, social and economic problem of ousters and affected population like availability of drinking water, electricity and employment Appropriate action to address the issues raised in the Public Hearing have already been taken.
- (xxv) Consent to Operate for the existing capacity was obtained from the MPPCB on vide Consent no. AW-57036 on 23.11.2022 and is valid till 30.11.2023.
- (xxvi) No River/nalla is flowing near boundary of lease.
- (xxvii) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to MPPCB and also to MoEF&CC along with half yearly EC compliance report. In general, the results of ambient air quality monitoring data were found within prescribed limits except few aberrations which can be attributed to the specific local conditions during the day of sampling.
- (xxviii) No court cases, violation cases are pending against the project of the PP.
- (xxix) The project does not involve violation of the EIA Notification, 2006 and amendment issued thereunder. The coal production from the mine was started from the year 1977-78 onwards. No excess production of coal from the sanctioned capacity has been realized since the commencement of mining operation. The Coal Production, realized from the project, from 1993-94 onwards, is as under :

Year	EC Sanctioned Capacity (MTPA)	Actual Production (MTPA)	Excess production beyond the EC sanctioned capacity
1993-94	10.0	8.01	NIL
1994-95	10.0	5.73	NIL
1995-96	10.0	7.54	NIL
1996-97	10.0	9.40	NIL
1997-98	10.0	9.42	NIL
1998-99	10.0	8.59	NIL
1999-00	10.0	9.15	NIL
2000-01	10.0	9.30	NIL
2001-02	10.0	9.12	NIL
2002-03	10.0	9.01	NIL
2003-04	10.0	9.66	NIL
2004-05	10.0	10.00	NIL

2005-06	10.0	9.90	NIL
2006-07	10.0	10.57	0.57
2007-08	10.0	12.79	2.79
2008-09	15.50	13.02	NIL
2009-10	15.50	13.35	NIL
2010-11	15.50	15.50	NIL
2011-12	15.50	14.11	NIL
2012-13	15.50	12.70	NIL
2013-14	15.50	11.74	NIL
2014-15	15.50	11.85	NIL
2015-16	15.50	14.40	NIL
2016-17	15.50	15.40	NIL
2017-18	15.50	15.50	NIL
2018-19	25.00	18.365	NIL
2019-20	25.00	19.53	NIL
2020-21	25.00	21.03	NIL
2021-22	25.00	24.746	NIL

- (xxx) The project involves 1599 Nos. of project affected families. R&R of the PAPs will be done as per RFCTLAR Act 2013 & CIL R&R policy.
- (xxxi) Total cost of the project is Rs. 272567.00 lakhs. Cost of production is Rs. 723.45 /- per tonne, CSR cost is as per CIL CSR Policy, 2021, the fund for the CSR should be allocated based on 2% of the average net profit of the company for the three immediate preceding financial years, R&R cost is Rs. 661.254 Crores. Environment Management Cost is Capital Rs. 81.4895 Crore & Recurring Rs. 26.50 Crores.
- (xxxii) Consent to Operate for the existing capacity was obtained from the MPPCB on vide Consent no. AW-57036 on 23.11.2022 and is valid till 30.11.2023.
- (xxxiii) Past Production details comparison with existing EC :

Year	EC Sanctioned Capacity (MTPA)	Actual Production (MTPA)
2017-18	15.50	15.50
2018-19	25.00	18.365
2019-20	25.00	19.53
2020-21	25.00	21.03
2021-22	25.00	24.746

39.3.3 The EAC after detail deliberation noted the following:

- I. The project proponent has obtained the following Environmental Clearance for Jayant OCP:
 - a. EC vide Ministry's letter No J-11015/4/82-Env.5/IA.II (M) dated 04.12.1992 for 10.0 MTPA.

- b. EC vide Ministry's letter No J-11015/374/2007-IA.II(M) dated 01.05.2008 for 12.50 MTPA.
- c. EC vide Ministry's letter No J-11015/382/2008-IA.II(M) dated 10.12.2008 under Clause 7(ii) of EIA Notification, 2006 for 15.50 MTPA.
- d. EC vide Ministry's letter No J-11015/12/2017-IA.II (M) dated 29.08.2018 with Public Hearing (held on 13.12.2017) for 25 MTPA in mine lease area of 3177.171 ha.
- II. The Mining Plan (Including Progressive Mine Closure Plan) was approved by the NCL Board vide letter dated 31.10.2021 for mining lease area of 3177.171 Ha.
- III. The project proponent submitted that 1180.171 ha of forest land involved in the project.

Forest Land (Ha)	Letter No. and Date
943.00 Ha	Acquired under CBA (A&D) Act, 1957 & broken before FC Act, 1980
100.00 Ha	Letter No. 8-67/2002-FC(Pt.) dated 12.08.2002 and renewal granted on 27.01.2021
68.290 Ha	Letter No. 8-158/90-FC dated 16.01.1997*
50.881 Ha	Letter No. 8-93/99-FC dated 25.01.2000*
18.00 Ha	Letter No. 8-26/2015-FC dated 12.04.2018*

- IV. The project proponent has obtained NOC from Central Ground Water Authority for Jayant OCP vide no CGWA/NOC/MIN/ORIG/2021/12798 dated 01.09.2021.
- V. The Project proponent has conducted the Public hearing on 13.12.2017 for production capacity of 25.00 MTPA. Major issue rose regarding the rehabilitation & employment, social and economic problem and affected population like availability of drinking water, electricity and employment.
- VI. The project proponent has submitted the following status of OM dated 11th April 2022 for expansion of Jayant OCP from 25 MTPA to 30 MTPA:

Sl. No.	Condition as per OM	Compliance
(i)	The project should have gone through the public hearing process, at least once, for its existing EC capacity on which expansion is being sought, except those categories of projects which have been exempted as per para 7 III (i) of EIA Notification 2006 and its amendments.	The project had undergone public hearing on 13.12.2017 at Officers Club, Jayant during EC for 25 MTPA capacity (awarded vide letter no. J-11015/12/2017-IA.II(M) dated 29.08.2018) under clause 7(i) of EIA notification-2006.
(ii)	There should not be change in Category of the project from 'B2' to 'B1' or 'A' due to proposed modernization or expansion.	There is no change in category of the project. The Project is of category 'A' for existing as well as for proposed expansion.
(iii)	There is no additional land acquisition or forest land diversion involved for the	There is no additional land acquisition or forest land diversion and no increase in

Sl. No.	Condition as per OM	Compliance
	proposed expansion or there is no increase in lease area with regard to mining vis-a-vis the area mentioned in the EC, based on which public hearing has been held earlier.	lease area with regard to mining vis-à-vis the area mentioned in the EC of 25 MTPA, i.e. 3177.171 Ha, based on which the public hearing was held.
(iv)	The proposed expansion shall not be more than 50% of production capacity as mentioned in the prior EC, issued on the basis of public hearing held and the same shall be allowed in minimum three phases.	The expansion is from 25 to 30 Mtpa i.e. 5 Mtpa increase which is 20% of the prior EC of 25 Mtpa on which public hearing was held.
(v)	Predicted environmental quality parameters arising out of proposed expansion / modernization shall be within the prescribed norms and the same shall be maintained as per prescribed norms.	Predicted environmental quality parameters arising out of proposed expansion are slightly above the limits.
(vi)	The proposed expansion should not result in reduction in the greenbelt area as stipulated in the earlier EC, or if the existing ratio of greenbelt is more than 33%, after expansion it should not reduce below 33%.	There will be no reduction of greenbelt area as per earlier EC as there is no change in Greenbelt and OB dump reclamation strategy from the approved EIA-EMP.
(vii)	The project proponent should have satisfactorily complied the conditions stipulated in the existing EC(s) and satisfactorily fulfilled all the commitments made during the earlier public hearing/consultation proceedings and also the commitments given while granting previous expansion, as may be applicable. This shall be duly recorded in the certified compliance report issued by the IRO/CPCB/SPCB, which should not be more than one year old at the time of submission of application.	The updated certified compliance report dated 25.11.2022 has been obtained from IRO, MOEF&CC, Bhopal and ATR submitted separately to MOEF&CC.
(viii)	Public Consultation shall be undertaken [if applicable as per table below] by obtaining response in writing, as per para 7 III (ii) (b) of EIA Notification 2006, except those categories of projects which have been exempted as per para 7 III (i) of EIA Notification 2006 and its amendments.	No public consultation is required for expansion up to 20% expansion as per MoEFCC OM F.No.-IA3-22/10/2022-IA.III [E 177258] dated 11.04.2022).
(ix)	Effluent monitoring including air quality	Effluent and air quality are regularly

Sl. No.	Condition as per OM	Compliance
	monitoring systems as specified in the existing EC, if stipulated, should have been installed.	monitored as per the EC and standard guidelines. The reports are regularly submitted to SPCB and IRO, MOEF&CC, Bhopal and other authorities. Also, Jayant project has installed a Continuous Ambient Air Quality Monitoring System in its lease area. The reports are regularly submitted to SPCB and CPCB.

Earlier, the project was appraised by EAC in its 37th meeting held 17-18 November, 2022 and deferred for submission of compliance of observation. PP has submitted the compliance and the same is detailed below:

Sl. No.	Observations by EAC	Compliance by Project Proponent
1	In view of the Severely Polluted Area (Singrauli), PP needs to submit the application of expansion of production only after achieving 90% weighted physical progress of CHP/belt conveyor work as given in existing EC.	<ul style="list-style-type: none"> ▪ The physical progress of incremental CHP (15 MTPA) in totality is 93.11% as on 31.12.2022. ▪ At present, one section i.e. west stream of 5 MTPA has become operational w.e.f 27.12.2022. ▪ The next stream of east section (5 MTPA) shall be in operation by Jan'2023 and that of coal section stream (5 MTPA) by March'2023.
2	PP also needs to work out the coal evacuation /transportation plan within the mine lease area and outside the mine with mechanized system. Accordingly, PP needs to come with adequate presentation for existing and proposed transportation routes along with mitigation measures required due to selective road transportation. A proper tabular form incorporating quantity of coal and mode of transportation from one location to another with defined transportation route shall be provided.	<ul style="list-style-type: none"> ▪ Coal evacuation /transportation plan for existing and proposed transportation routes are given in the following slides. ▪ During the year 2022-23, 1.5 MT shall be dispatched through new CHP and for the year 2023-24 onwards, it will be 17 to 18 MTPA considering the 20% increase over and above the rated capacity of 15 MTPA. ▪ All the mitigation measures for control of pollution like continuous water sprinkling through Mobile Tankers and Mist Spray, Optimum loaded and covered trucks to avoiding spillage, construction of CC road inside & outside project area etc. being adhered to.
3	PP needs to submit a clarification on	<ul style="list-style-type: none"> ▪ As per the expansion project report, none

	the need of diversion of Ballia stream flowing within mine lease area and submit its plan for protection.	<p>of the local nallah or Ballia Nala is to be diverted.</p> <ul style="list-style-type: none"> ▪ The Ballia Nallah is seasonal nallah in monsoon specially. ▪ In order to ensure ZERO DISCHARGE, a sedimentation pond of the 62.50 lakh litres capacity will be constructed at down gradient side of the mine lease by March 2023 at the estimated cost of Rs. 1.24 Crore, for which tender has been floated and work order likely to be issued by end of January, 2023.
4	PP needs to submit the adequate action plan for pollution control measures with the budgetary allocation as the Mine lease area falls in the severally polluted area of Madhya Pradesh.	<ul style="list-style-type: none"> ▪ The action plan for pollution control measures have already been proposed in the EMP with financial budget allocation. <ul style="list-style-type: none"> ▪ The total cost involved is Rs. 6.75 Cr for augmentation of pollution control measures.
5	PP needs to submit the certified action taken report from Integrated regional office of MoEF&CC for the non-compliance points as observed by IRO.	<ul style="list-style-type: none"> ▪ The certified report of the EC conditions has been obtained on dated 19/04/2022 and subsequently on 25/11/2022 from IRO, Bhopal and as per report only 6 conditions are considered as partly complied. ▪ ATR of the partly complied conditions has been submitted.
6	PP needs to take the immediate pollution mitigation measures for reduction of PM10 and PM2.5 levels as observed within in Mine lease area and submit the same with one-month air quality data in the said location.	<ul style="list-style-type: none"> ▪ The pollution control measures at the monitoring points has been enhanced by installation of fixed fog cannon system and through mobile tankers as well. ▪ The frequency of water spraying inside the mine area has also been increased by the available fleet of water tankers. ▪ The air quality monitoring is completed for one-month period i.e. 4.12.2022 to 03.01.2023 and results have considerably improved in the said location i.e. JA-7 and JA-8. ▪ The fixed type fog cannons (2 nos.) have been installed for dust suppression.
7	The PP shall submit the operation status or upgradation of STP and	<ul style="list-style-type: none"> ▪ At present a sewage treatment plant (STP) is under operation at Jayant Project with

	upgradation, if any as per the State's Action Plan.	<p>capacity of 4 MLD.</p> <ul style="list-style-type: none"> ▪ This is sufficient to cater the existing manpower at the colony. ▪ There is no upgradation required of Jayant STP as per state action plan.
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39.3.4 *The EAC after deliberations noted that the instant project is for expansion under the OM dated 11.04.2022. Earlier PP had obtained their Environmental Clearance vide letter dated 29.08.2018 with the public hearing for 25 MTPA. Now PP has applied for 20% expansion (Stage-I) as per the OM dated 11.04.2022 under para 7(ii) of EIA Notification, 2006.*

During discussion, the EAC emphasized on the Overburden haul road to be made by September, 2023 in order to reduce the pollution and for easing transportation. After detailed discussion, PP agreed to transport 28 MTPA of Coal through mechanized system, which would be committed to complete by May, 2023. EAC emphasized that no CTO to be provided by concerned SPCB beyond July 2023. Rest of 2 MTPA of Coal could be transported by the road and for which PP shall submit the complete transportation route with distance alongwith environment protection measures.

*Based on documents submitted by PP and discussion held in the meeting, EAC **recommended** the proposal for Environmental Clearance under Ministry's OM dated 11.04.2022 (Stage I) for expansion of Jayant Opencast Project in Singrauli Coalfield from 25 MTPA to 30 MTPA in Project Area of 3177.171 Ha by M/s Northern Coalfields Limited located at village Garda, District Singrauli, Madhya Pradesh under EIA Notification, 2006 and subsequent amendments/circulars thereto by MoEF&CC along with the compliance of the following terms & conditions / specific conditions for environmental safeguards:*

- (i) The PP shall transport 28 MTPA of Coal by complete mechanized system (inpit belt conveyor system upto railway siding) by July, 2023 and accordingly no CTO to be provided by SPCB. Remaining 2 MTPA of Coal may be transported through dedicated road. SPCB to grant the CTO for only 2MTPA through road.*
- (ii) PP shall submit the complete details for transportation of 2MTPA coal with dedicated route. No village road shall be used for road transportation and there must be dedicated road for the purpose. Adequate dust mitigation measures such plantation and water sprinkler system shall be installed along the road. Fleet size shall not be less than 40 tonn for transportation through road on dedicated road.*
- (iii) PP shall explore the possibility of deploying up to 50% of trucks for road transportation which shall be based on Hybrid Fuel Technology/ CNG/ EVs and other green fuels.*
- (iv) PP shall submit the status of expenditure plan for the already allocated Public Hearing Budget including the amount that has been spent already or going to spend in future.*
- (v) PP shall install fixed fog cannon (mist spayer) all along the haul road till CHP, Railway siding and OB Dump area and accordingly sufficient number of fog cannons (not less than 10 nos.)*

with 40 mts jet length shall be installed within 6 months. It should be ensured that air pollution level confirm to the standards prescribed by the MOEFCC/CPCB.

- (vi) PP should Install Wind breaker/shield arrangement along the railway siding for reducing the dust propagation in upwind direction.*
- (vii) PP to develop an ECO park with separate area of 5 ha for medicinal and herbal species within two years.*
- (viii) Top soil should be stored separately at marked area and necessary vegetation shall be maintained to avoid any entrainment of dust.*
- (ix) Progressive backfilling of mine and progressive reclamation by conducting tree plantation of OB dump shall be done.*
- (x) Hon'ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vs Union of India & Ors vide its judgement dated 8th January, 2020 has directed the Union of India to impose a condition in the mining lease and a similar condition in the environmental clearance and the mining plan to the effect that the mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. Compliance of this condition after the mining activity is over at the cost of the mining lease holders/Project Proponent". The implementation report of the above said condition shall be sent to the Regional Office of the MoEFCC.*

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

- (i) Transportation of materials by rail/conveyor belt shall be implemented*
- (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) Increase green belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever feasible.*
- (iv) Greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc. shall be implemented.*
- (v) Assessment of carrying capacity of mine & road transportation shall be done as per the State Plan/instructions.*
- (vi) Reuse/recycle of treated wastewater shall be implemented as feasible with latest technology. Zero liquid discharge concept may be adopted.*
- (vii) 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.*
- (viii) A detailed water harvesting plan may be prepared by the project proponent for water augmentation and submitted to Regional Office of MoEF&CC.*
- (ix) The project proponent shall install STP for generated domestic wastewater and should meet for discharge standards.*
- (x) 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.*

- (xi) *Monitoring of compliance of EC conditions may be submitted with third party audit every year.*

Agenda No. 39.4

Expansion of Lakhanpur opencast (Phase -II) coal mining project for increase in production capacity from 21 MTPA to 22.5 MTPA (increase of 10% w.r.t 15 MTPA) in the Mining lease area of 2452 Ha by M/s Mahanadi Coalfields Ltd, located in the village Khairakuni, Tingismal, Ubuda, Khuntamahul, Kalarajori, Khaliapalli, Soladia, Lakhanpur, Kudaloi, Kusaraloi, and Banjhipali, Tehsil Lakhanpur, District Jaarsuguda (Odisha) –For Environmental Clearance dated 30.05.2022 issued under OM vide no. F. No, [A3-22/10/2022-IA.III 07.05.2022- [Availed total 50% relaxation of OM dealing with exemption of public hearing under clause 7 (ii) of EIA notification]

[Online Proposal No. IA/OR/CMIN/408586/2022; File No. J-11015/391/2012- IA.II(M)]

39.4.1 The proposal is for Environmental Clearance issued under OM dated 07.05.2022, which has availed total 50% relaxation for project “ *Lakhanpur opencast (Phase -II) coal mining for increase in production capacity from 21 MTPA to 22.5 MTPA (increase of 10% w.r.t 15 MTPA) in the Mining lease area of 2452 Ha by M/s Mahanadi Coalfields Ltd, located in the village Khairakuni, Tingismal, Ubuda, Khuntamahul, Kalarajori, Khaliapalli, Soladia, Lakhanpur, Kudaloi, Kusaraloi, and Banjhipali, Tehsil Lakhanpur, District Jaarsuguda (Odisha)*”.

39.4.2 The committee during the EAC meeting observed the following:

- (i) The following Environmental Clearance were granted at different time series to Lakhanpur opencast (Phase -II) coal mining project in the MLA of 2452 Ha:
- EC for the production capacity of 15 MTPA vide letter no. J-11015/638/2007-IA.II (M) dated 02.07.2008.
 - EC for the production capacity from 15 to 18.75 MTPA vide letter no. J-11015/391/2012-IA.II (M) dated 21.05.2014 with exemption of Public Hearing.
 - EC for the production capacity from 18.75 to 21 MTPA vide letter no. J-11015/391/2012-IA.II (M) dated 28.02.2018 with exemption of Public Hearing.
 - EC for the production capacity from 21 MTPA to 22.05 MTPA (10% increase w.r.t. 15 MTPA) under OM dated 07.05.2022 (availing total 50% relaxation with exemption of public hearing under clause 7 (ii) of EIA notification, 2006) vide letter no. J-11015/391/2012-IA.II (M) dated 30.05.2022 with exemption of Public Hearing.
- (ii) Forest Clearance for 227.89 ha had been obtained vide dated 08.10.1990.
- (iii) Mining Plan & Mine Closure Plan has been approved by MCL Board for 22.5 MTPA vide dated 22.06.2022.
- (iv) The PP has submitted that Life of the mine 06 Years.
- (v) CGWA clearance for the Lakhanpur Opencast Project was valid up to 08.12.2022.
- (vi) The PP has submitted the certified compliance report for the production capacity from 18.75 to 21 MTPA (for 40% expansion) vide letter dated 23.05.2022.

- (vii) The PP has submitted the EIA-EMP report based on baseline data collected for the period of March, 2021 to May, 2021.
- (viii) The PP has submitted the Consent order vides dated 31.03.2022 for the production capacity of 21 MTPA for period from 01.04.2022 to 31.03.2023.
- (ix) The Past production status is as follow:

Year	EC sanctioned capacity (MTPA)	Actual Production (MTPA)	Excess production beyond the EC sanctioned capacity
1992-93	5.00	0.02	--
1993-94	5.00	0.70	--
1994-95	5.00	1.43	--
1995-96	5.00	2.11	--
1996-97	10.00	2.85	--
1997-98	10.00	2.53	--
1998-99	10.00	3.00	--
1999-2000	10.00	4.15	--
2000-01	10.00	4.48	--
2001-02	10.00	4.71	--
2002-03	10.00	5.91	--
2003-04	10.00	6.77	--
2004-05	10.00	9.19	--
2005-06	10.00	9.92	--
2006-07	10.00	10.16	0.16
2007-08	10.00	10.33	0.33
2008-09	15.00	11.78	--
2009-10	15.00	13.06	--
2010-11	15.00	14.01	--
2011-12	15.00	15.00	--
2012-13	15.00	15.00	--
2013-14	15.00	15.00	--
2014-15	18.75	18.40	--

2015-16	18.75	18.75	--
2016-17	18.75	18.75	--
2017-18	21.00	20.72	--
2018-19	21.00	20.99	
2019-20	21.00	20.99	
2020-21	21.00	20.99	
2021-22	21.00	20.99	
Total	307.25	238.73	0.49

39.4.3 The EAC after deliberations observed that instant project has been submitted in compliance of Ministry's OM dated 7th May, 2022 wherein expansion in capacity was granted in advance due to shortage of coal in the country and as per the condition contained therein. PP is required to submit the proposal within six months with preparation of EIA/EMP based on standard ToR. EAC observed that EC under this OM was granted on 30th May, 2022, however, the proposal was submitted with delay of one month beyond the prescribed time limit of six months.

It was observed that the PM10 in the Khairkuni Village (Core Zone) has exceeded the standard limits prescribed by National Ambient Air Quality Standards, 2009, which indicates adequate pollution control measures has not been taken. The Committee also noted that the Project proponent has not obtained the prior consent to operate for enhanced capacity for 22.5 MTPA from SPCB (on which EC for special dispensation has been granted vide letter dated 30.05.2022). This also indicate the lackadaisical approach of PP in achieving the production target.

During the course of discussion EAC noted the non-compliance of important specific conditions such as installation of continuous air quality monitoring station, in-pit belt conveyor system with mist type sprinklers, Absence of wind barrier, inadequate 3 tier Plantations and non-functioning of ETP. Further EAC noted that the baseline data has been generated for the period from March, 2021 to May, 2021, which is well prior to grant of EC under special dispensation and does not represent the true values.

The Committee also noted that the project proponent was not able to present the status of compliance of issues raised during Public Hearing along with its utilization of funds w.r.t. EMP Budget already earmarked and allocated budget. Additionally, the committee emphasized that the project should collect the fresh baseline data before the April, 2023 and same to be submitted to Ministry.

The Committee expressed displeasure that the PP was given enough opportunity to collect the pre and post monsoon data after grant of EC; rather PP lately submitted data and try to manipulate the requirement. Also there are several non-compliance in existing EC, which entails non-seriousness of PP. Finally, Committee cautioned PP to resubmit the application with the requirement of OM

based on which EC was granted otherwise EAC left with no option but to recommend for withdrawal based on the ground that major conditions of EC w.r.t. mechanized system, mandatorily to be completed, has not been done. PP was instructed to complete the requirement as per the following and resubmit the application by June, 2023 for its review. In case of fail, MoEF&CC may take appropriate action.

In view of the above, EAC **deferred** the project for strictly submission of following by June 2023 so that the compliance of EC issued under OM dated 07.05.2022 to be monitored:

- (i) PP should submit mandatory physical progress for implementation of in-pit belt conveying system with silo loading facility for onward transportation of coal.
- (ii) PP shall submit the prior consent to operate for enhanced capacity i.e for 22.5 MTPA from the State Pollution Control Board under Air and Water Act.
- (iii) PP shall submit vetted Action Taken Report on non-compliances from IRO on the certified compliance report of the EC vide No. J-11015/391/2012-IA.II (M) dated 28.02.2018 granted for total 40 % expansion after complying all major specific condition mentioned in the EC letter.
- (iv) PP shall submit the Baseline data collected after grant of the EC vide dated 30.05.2022 along with revised EIA-EMP report incorporating the major changes and their implications.
- (v) PP shall submit the status of construction of ETP with photographs along with the plan for addition of recycling setup.
- (vi) PP shall submit drone survey of 10 minutes and the mine photographs including the dump, 3-tier plantation, ETP and other major mine component.
- (vii) PP shall submit the status of expenditure plan with photographs for the already allocated in Public Hearing Budget including the amount that has been spent already or going to spend in future.
- (viii) PP shall submit additional mitigation measures for PM10 in the Khairkuni Village (Core Zone).

Agenda No. 39.5

Expansion of Singhori opencast coal mining project for increase in production capacity from 1.12 MTPA to 1.20 MTPA (increase of 10% to original EC i.e 0.8 MTPA) of in land area of 423.91 Ha (within the already sanctioned EC ML area of 425.04 Ha) by M/s Western Coalfields Ltd, located in the village Singhori, Tehsil Parseoni, District Nagpur (Maharashtra) - For Environmental Clearance dated 23.05.2022 issued under OM no. F. No. IA3-22/10/2022-IA.II 07.05.2022 (availing 50% relaxation in original EC capacity under clause 7(ii) of EIA, Notification with exemption of public hearing) reg.

[Online Proposal No. IA/MH/CMIN/410896/2022; File No. J-11015/67/2006-IA-II(M)]

39.5.1 The proposal is for Environmental Clearance issued under OM dated 07.05.2022 to avail total 50% relaxation for project “Singhori opencast coal mining project for increase in production capacity from 1.12 MTPA to 1.20 MTPA (increase of 10% to original EC i.e 0.8 MTPA) of in land area of 423.91 Ha (within the already sanctioned EC ML area of 425.04 Ha) by M/s Western Coalfields Ltd, located in the village Singhori, Tehsil Parseoni, District Nagpur (Maharashtra)”.

39.5.2 The committee during the EAC meeting observed the following:

- (i) The following Environmental Clearance vide letter no. J-11015/67/2006-IA.II(M) was granted to Singhori (Phase -II) coal mining project:
 - a. EC granted for the production capacity of 0.80 MTPA vide dated 17.05.2007 with public hearing.
 - b. EC granted for the production capacity from 0.8 to 1.12 MTPA dated 22.08.2019 with exemption of Public Hearing.
 - c. EC accorded for the production capacity from 1.12 to 1.20 MTPA dated 23.05.2022 under OM dated 07.05.2022 (availing total 50% relaxation with exemption of public hearing under clause 7 (ii) of EIA notification, 2006).
- (ii) Application for renewal of NOC for CGWA is still under consideration at CGWA/CGWB.
- (iii)The PP has obtained the Stage-II forest clearance for total 14.23 Ha of forest land which is involved in the project area.
- (iv)The PP has conducted the Public Hearing on 26.04.2005 for production capacity of 0.80 MTPA in the mining lease area of 428.0 Ha by Maharashtra Pollution Control Board.
- (v) The PP has obtained the Consent to Operate for the capacity 1.12 MTPA from the State PCB dated 27/12/2021 valid up to 31.03.2023.
- (vi)Life of mine is 07 years (Balance as on 01.04.2022).
- (vii) The PP did not submit the certified compliance report vide letter no. EC-1067/RON/2019-NGP/10433 dated 13.10.2022 for EC letter dated 22.08.2019.
- (viii) Baseline data for the period from April 2022 to June 2022 has been collected used for preparation of EIA/EMP report.
- (ix)Past production status is as follow

Year	EC capacity	Coal (Mt)	OB (Mm3)
2017-18	0.80	0.354	3.728
2018-19	0.80	0.80	4.632
2019-20	1.12	1.12	4.071
2020-21	1.12	1.12	3.421
2021-22	1.12	1.12	2.346
Total	-	4.514	18.198

39.5.3 The EAC after deliberations observed that instant project has been submitted in compliance of Ministry's OM dated 7th May, 2022 wherein expansion in capacity was granted due to shortage of coal in the country and PP was required to submit the proposal within six months with collection EIA/EMP based on standard ToR. It has further observed that EC under this OM was granted on 23rd May, 2022 and preparation of EIA/EMP took some time hence, the proposal was submitted with delay of approx. one month.

Further, it has been observed that the PM10 in the core zone exceeded the standard limits prescribed by National Ambient Air Quality Standards, 2009. The Committee also noted that the Project proponent has not obtained the prior consent to operate for enhanced capacity of 1.20 MTPA from SPCB (on which EC for special dispensation has been granted vide letter dated 30.05.2022), which indicate lackadaisical approach of PP for achieving coal production as EC was granted in anticipation that PP would achieve this target.

EAC noted that the coal dispatched through road to Dumri Railway Siding, located at 34 Kms, & sufficient quantity to the power plant located at 21 Kms & 10 Kms away from mine site. EAC emphasized to setup the mechanized transportation system for transporting the coal to Dumri Railway Siding and Power plant till September, 2023. EAC also noted that the higher value of PM10 in the core zone of coal mining will contribute for severe air pollution. Subsequently, EAC highlighted that the project proponent did not renew the NOC of CGWA.

During the course of discussion EAC noted the non-compliance of important specific conditions related to maintaining the air quality in the mine lease area within the prescribed limit of CPCB, implementation of in-pit belt conveyor system with mist type sprinklers, Plantations still at 1st stage (i.e. Seed germination stage), and non-functioning of ETP. EAC also notify that the project proponent should submit the complete compliance report of each specific condition to IRO, MoEF&CC. The Committee also noted that the project proponent was not able to present compliance status of issues raised during already conducted Public Hearing alongwith its EMP Budget (earlier and future)

Finally, EAC expressed displeasure on non-implementation of EC conditions w.r.t. mechanized system and for not taking CTO and CGWA permission, which would mandatorily require for ensuring the satisfactory compliance of EC condition with enhanced production capacity.

In view of the above, EAC observed that PP has to submit the compliance of below mentioned observation by May 2023 for further consideration of the project so that the compliance of EC issued under OM dated 07.05.2022 to be monitored:

- (i) PP shall submit the prior consent to operate for enhanced capacity that is for 1.20 MTPA from the State Pollution Control Board under Air and Water Act.*
- (ii) PP shall submit the undertaking to complete the implementation of pipe conveyor system and agreement with Mahagenco to stop the road transportation.*
- (iii) PP shall submit the vetted action report from IRO on certified compliance report of the EC letter dated J-11015/67/2006-IA.II (M) dated 22.08.2019 granted for total 40 % expansion after complying all major specific condition mentioned in the EC letter.*
- (iv) PP shall submit the status of construction of ETP along with the plan for addition of recycling setup.*
- (v) PP shall submit the mine photographs including the dump, 3-tier plantation, ETP and other major mine component certified by the technical department head.*
- (vi) PP shall submit the valid NOC from CGWA for the withdrawal of Ground water.*
- (vii) PP shall submit the status of expenditure plan for the already allocated in Public Hearing Budget including the amount that has been spent already or going to spend in future.*

In view of above, the proposal was deferred.

Agenda No. 39.6

Expansion of Dinesh (Makardhokra -III) Opencast Coal mining project for increase in production capacity from 4.2 MTPA to 4.5 MTPA (increase of 10% w.r.t 3 MTPA) in land area of 919.63 Ha by M/s Western Coalfields Ltd, located in the Village Hevti, Tehsil Umrer, District Nagpur (Maharashtra) - For Environmental Clearance dated 26.05.2022 issued under OM vide F. No. IA3-22/10/2022-IA.III 07.05.2022- [Availing total 50% relaxation of OM dealing with exemption of public hearing under clause 7 (ii) of EIA notification]

[Online proposal No. IA/MH/CMIN/412454/2022; File No. J-11011/537/2008-IA-II(M)]

39.6.1 The proposal is for Environmental Clearance under OM dated 07.05.2022 to avail total 50% relaxation for project “*Dinesh (Makardhokra -III) Opencast Coal mining project for increase in production capacity from 4.2 MTPA to 4.5 MTPA (increase of 10% w.r.t 3 MTPA) in land area of 919.63 Ha by M/s Western Coalfields Ltd, located in the Village Hevti, Tehsil Umrer, District Nagpur (Maharashtra)*”.

39.6.2 The committee during the EAC meeting noted the following:

- (i) The following Environmental Clearance vide letter no. J-11015/537/2008-IA.II (M) was granted to Dinesh (Makardhokra -III) Opencast Coal mining project:
 - a. EC granted for the production capacity of 3 MTPA in the MLA of 1636.97 ha dated 21.06.2011 with public hearing.
 - b. EC granted for the production capacity from 3 to 4.2 MTPA in the MLA of 919.63 ha vide dated 29.11.2018 with exemption in Public Hearing.
 - c. EC granted for the production capacity from 4.2 to 4.5 MTPA ((increase of 10% w.r.t. 3.0 MTPA) vide dated 26.05.2022 (availing total 50% relaxation with exemption of public hearing under clause 7 (ii) of EIA notification, 2006) under OM dated 07.05.2022.
- (ii) Life of mine is 5 years.
- (iii) The PP has conducted the public hearing on 20.10.2010 by State Pollution Control Board.
- (iv) Certified compliance report of Dinesh (Makardhokra-III) Expansion OC has been obtained from IRO, MoEF&CC Nagpur dated 17.10.2022.
- (v) The Mining Plan along with Mine Closure Plan for Dinesh (Makardhokra-III) OC has been approved by WCL Board for expansion in production capacity from 4.20 MTPA to 4.50 MTPA in the MLA of 919.63 ha dated 24.06.2022.
- (vi) The Wildlife conservation plans vide letter no. 725-731 dated 23.06.2022 is under preparation phase, while the field visit has been completed by experts of WII, Dehradun in October, 2022.
- (vii) The application has been submitted for renewal of NOC by CGWA vide application no. 21-4/1023/MH/MIN/2017 dated 07.06.2021. NOC renewal letter still awaited.
- (viii) The PP has obtained the CTO for the existing capacity of 4.50 MTPA from the State PCB on 16.11.2022 which is valid upto 31.03.2024.
- (ix) The Project proponent has collected the Baseline Data from April 2022 to June 2022 (Pre-Monsoon) period.

(x) Past production status is as follow

Year	EC Sanctioned capacity (MTPA)	Actual Production (MTPA)	Excess production beyond the EC sanctioned capacity
2016-17	3.00	0.01	NIL
2017-18	3.00	2.23	NIL
2018-19	4.20	3.26	NIL
2019-20	4.20	4.13	NIL
2020-21	4.20	2.41	NIL
2021-22	4.20	1.13	NIL

39.6.3 The EAC after deliberations observed that instant project has been submitted in compliance of Ministry's OM dated 7th May, 2022 wherein expansion in capacity was granted in view of shortage of coal in the country and PP was required to submit the proposal within six months with collection EIA/EMP based on standard ToR. It has further been observed that EC under this OM was granted on 26th May, 2022 but the proposal was submitted with delay of approx. one month.

Despite Ministry granted EC for expansion in capacity upto 4.5 MTPA however, PP is unable to achieve the actual production against the sanctioned capacity. In the last two financial years, the maximum production was 2.41 MTPA against permitted capacity of 4.2 MTPA. EAC advised the project proponent that they must first reach the previous rated capacity and based on rated capacity the baseline data would be collected.

During the course of discussion EAC noted the non-compliance of important specific conditions related to maintaining the air quality in the mine lease area within the prescribed limit of CPCB, implementation of in-pit belt conveyor system with mist type sprinklers, Plantations still at 1st stage (i.e. Seed germination stage), and non-functioning of ETP. EAC also notify that the project proponent should submit the complete compliance report of each specific condition to IRO, MoEF&CC.

Finally, EAC emphasized to re-collect the Baseline data after achieving the previous EC capacity granted for 40% production capacity and after completing the compliance of all EC condition dated 23.05.2022. The same should be submitted to the Ministry by May 2023 for review and validation of EC. The Committee also noted that the project proponent was not able to present the status of already allocated Public Hearing and EMP Budget also the amount that has been already spent or going to spend in future.

In view of the above, EAC observed that PP has to submit the compliance of below mentioned observation for further consideration of the project so that the compliance of EC issued under OM dated 07.05.2022 to be monitored:

- (i) PP shall submit the vetted ATR of certified compliance report of the EC letter dated J-11015/537/2008-IA.II (M) dated 29.11.2018 granted for total 40 % expansion
- (ii) After achieving the production capacity and complying all specific condition mentioned in the EC letter, PP shall re-collect Baseline data after achieving the production capacity granted for total

40 % expansion along with revised EIA-EMP report incorporating the major changes and their implications.

- (iii) PP shall submit the status of ETP along with the plan for addition of recycling setup.
- (iv) PP shall submit the mine photographs including the dump, 3-tier plantation, ETP and other major mine component certified by the technical department head.
- (v) PP shall submit the valid NOC from CGWA for the withdrawal of Ground water.
- (vi) PP shall submit the status of expenditure plan for the already allocated in Public Hearing Budget including the amount that has been spent already or going to spend in future.
- (vii) Proposal should be resubmit the proposal for review by May 2023.

In view of above, the proposal was **deferred**.

Agenda No. 39.7

Cluster no. 09 group of 15 opencast / underground mine projects of peak production of 8 MTPA in total mine lease area of 7145.40 Ha of M/s Eastern Coalfields Limited in district Paschim Bardhaman West Bengal- For Amendment in Environmental Clearance letter dated 23.01.2015

[Online proposal No. IA/WB/CMIN/294025/2022; File No. J-11015/38/2011-IA.II (M)]

39.7.1 The proposal for amendment in Environmental Clearance letter dated 30.05.2018 for Cluster no. 09 group of 15 opencast / underground mine projects of peak production of 8 MTPA in total mine lease area of 7145.40 Ha of M/s Eastern Coalfields Limited in district Paschim Bardhaman West Bengal.

PP had requested vide letter dated 30.11.2022 for re-assessment of existing mine capacities based on the prevailing conditions of mine with the introduction of new High wall mining technology without change in mine lease area of cluster 09 group of 15 mine projects.

#	As per Existing EC / Approved Mining Plan				#	As per Revised Proposal			
	Name of the Mine	Lease Area (Ha)	Production Capacity (MTY)	Mine Life (Years)		Name of the Mine	Proposed Amendment / New Proposal	Production Capacity (MTY)	Mine Life (Years)
1	Ratibati UG	249.00	0.04	> 40	1	Ratibati UG	No change	0.04	> 40
2	Chapuikhas UG & OC	412.00	0.06	> 50	2	Chapuikhas UG & OC	No change	0.06	> 50
3	Amritnagar UG	279.00	0.60	> 50	3	Amritnagar UG	No change	0.60	> 50
4	Tirat-Kuardih UG & OC	829.50	0.15	> 10	4	Tirat-Kuardih UG & OC	No change	0.15	> 10
5	Nimcha UG & Amkola/Nimcha OC	890.20	1.43	> 40	5	Nimcha UG & Amkola/Nimcha OC Patch	No change	1.43	> 40

#	As per Existing EC / Approved Mining Plan				#	As per Revised Proposal			
	Name of the Mine	Lease Area (Ha)	Production Capacity (MTY)	Mine Life (Years)		Name of the Mine	Proposed Amendment / New Proposal	Production Capacity (MTY)	Mine Life (Years)
	Patch								
6	Ghusick-Muslia UG & OC	1548.00	1.93	> 25	6	Ghusick-Muslia UG & OC	No change	1.93	> 25
7	Kalipahari UG & OC	299.50	0.40	> 50	7	Kalipahari UG & OC	No change	0.40	> 50
8	Jemehari UG	118.00	0.04	> 10	8	Jemehari UG	No change	0.04	> 10
9	J K Nagar UG & OC	1237.00	0.42	> 50	9	J K Nagar UG & OC and Pure Searsole UG	Change in the name of the mine*	0.42	> 50
10	Damra UG	249.00	0.05	> 10	10	Damra UG	No change	0.05	> 10
11	Mahabir UG & Egara OC	241.20	0.38	> 25	11	Mahabir-Narainkuri UG & OC	Amalgamation for the purpose of operating proposed Narainkuri Highwall. Total leasehold area of the amalgamated mine will be 1034.20 Ha.	2.88	> 25
12	Narainkuri OCP	793.00	2.50	> 25					
Total		7145.40	8.00				No overall change in area and capacity	8.00	

The project proponent has submitted the following Justification for amendment in Environmental Clearance letter dated 30.05.2018:

- (i) Justification no. 1 for Narainkuri Highwall Mining and depth of mining: Introduction of Highwall Mining in Narainkuri OC for extraction of R-VIII Bot and R-VII (Comb. /Top) seams. The following seams are proposed to be mined by Highwall Mining method:

Coal Seam Name & Parting	Thickness Range (m)		Depth Range (m)	
	Min	Max	Min	Max
R-VIII Bot	3.45	5.25	7.97	64.00

R-VII (Top)	2.50	3.15	65	90.00
R-VII (Comb.)	2.85	4.10	50.0	102.20

Thus, it can be seen that maximum depth of Highwall Mining will be 102.20 m. Entries to these seams will be through the existing Narainkuri OC. Existing EC was granted for Narainkuri OC for which the maximum depth was proposed to be 150.00 m. quarry parameters are given below:

Particulars	Value
Minimum Depth of OCP (m)	43
Maximum Depth of OCP (m)	150
Length of quarry along Dip-rise on surface (km)	1.40 – 2.00
Strike Length of quarry on surface (km)	0.65 – 1.75
Gradient of the seam	1 in 6.5 to 1 in 16.4
Quarry/Excavation Area at surface (sq.km)	3.53
Quarry/Excavation Area at the floor (sq.km)	2.54

So, it is very much evident with the Highwall Mining, we are going only upto the depth of 102.20 m which is within 150.00 m.

- (ii) Justification no. 2 for Change in name of J K Nagar UG & OC to J K Nagar UG & OC and Pure Searsole UG: Pure Searsole UG is part of the leasehold of J K Nagar UG & OC. The WBPCB treats both these mines separately and accordingly, separate CTOs are being issued considering different mine in the same leasehold. Hence, change in the name of J K Nagar UG & OC is proposed as J K Nagar UG & OC and Pure Searsole UG to remove this anomaly and CTO can be obtained as a single mine. All the parameters of the mine are remaining the same as per the existing EC.
- (iii) Justification no. 3 for Production of J K Nagar UG & OC, Narainkuri OC and Mahabir UG & Egara OC for FY 2021-22: Production of J K Nagar UG & OC, Narainkuri OC and Mahabir UG & Egara OC for FY 2021-22 is given below:

Sl. No.	Name of Mine	Production (MT)
1	J K Nagar UG & OC	0.20
2	Narainkuri OC	0.00
3	Mahabir UG & Egara OC	0.00

ECL has been given a production target of 50.0 MT in FY 2022-23 out of which it is expected to reach nearly 38.0 MT. Narainkuri OC is presently not producing coal due to surface constrains however, it has been proposed to produce coal from highwall avoiding the surface constrains upto 0.50 MT.

39.7.2 The committee during the EAC meeting observed the following:

- (i) The EC has been granted vide letter dated 23.01.2015 for Cluster no. 09 group of 15 opencast / underground projects Coal Mining project of M/s Eastern Coalfield Limited with production of 6.25 MTPA (normative) to 8 MTPA (peak).
- (ii) The amendment in EC for Cluster no. 09 group of 15 opencast / underground projects Coal Mining project of M/s Eastern Coalfield Limited obtained vide dated 23.03.2017 and 30.05.2018.
- (iii) The Public Hearing was held on 24.05.2013 and the issue rose related to the Dust suppression & improvement of Environment, Transportation of Coal, Improper stowing arrangement, etc.

39.7.3 *The Committee, after deliberations observed that the Project proponent has submitted the proposal for amendment in EC dated 23.01.2015 regarding the restructure of mine lease area. EAC after deliberations recommended the proposal for merger of Mahabir UG & Egara OC with Narainkuri OCP to introduce the Highwall Mining technology along with the change in name of mine from J K Nagar UG & OC to J K Nagar UG & OC and Pure Searsole UG without change in configuration and capacity of opencast and underground mining. The found that there is no major environmental implication and it is adjustment & restructuring of mines depending on field requirements.*

*In view of the this, committee **recommended** the amendment of Environmental Clearance dated 23.01.2015 for Cluster no. 09 group of 15 opencast / underground mine projects of peak production of 8 MTPA in total mine lease area of 7145.40 Ha of M/s Eastern Coalfields Limited in district Paschim Bardhaman West Bengal, under the provisions of EIA Notifications, 2006 and its amendments therein on the proposal for merger of Mahabir UG & Egara OC with Narainkuri OCP along with the change in name of mine from J K Nagar UG & OC to J K Nagar UG & OC and Pure Searsole UG without change in configuration and capacity of opencast and underground mining.*

Agenda No. 39.8

Expansion of Cluster no. 2 group of mixed mines from 0.45 MTPA to 1.10 MTPA in combined ML Area of 1018 ha of M/s Eastern Coalfield Limited located in Tehsil Nirsa Cum-Chirkunda District Dhanbad (Jharkhand) – For Amendment in Environmental Clearance letter dated 27.05.2021- reg.

[Online proposal No. IA/JH/CMIN/295069/2022; File No. J-11015/37/2011-IA-II (M)]

39.8.1 The proposal is for Amendment in Environmental Clearance letter dated 27.05.2021 for Expansion of Cluster no. 2 group of mixed mines from 0.45 MTPA to 1.10 MTPA in combined ML Area of 1018 ha of M/s Eastern Coalfield Limited located in Tehsil Nirsa Cum-Chirkunda District Dhanbad (Jharkhand).

PP had requested to the Ministry for the following amendment in EC letter dated 27.05.2021:

- i. Decrease in lease area from 667.00 Ha to 634.00 Ha due to regularization of 33.0 Ha with Barmuri OC.
- ii. Increase in capacity from 0.5 MTY to 1.0 MTY with increase in leasehold area from 59.00 Ha to 92.00 Ha regularized as per approved MCP.

- iii. Introduction of Highwall Mining Technology. No change in area and capacity.

The project proponent has submitted the following justification for the above mentioned amendments:

- (i) **Justification** for Production Schedule for next ten years: Total OC capacity as per existing EC is 1.00 MTY and UG capacity is 0.10 MTY. With the proposed amendment, Rajpura & Barmuri OC production will be not more than 1.00 MTY and it will be capped at 1.00 MTY only (except for FY 2023-24) and UG capacity will be capped at 0.10 MTY. However, for the years 2023-24 and 2024-25, there will be proposed Highwall production of 0.25 MTY and 0.33 MTY respectively from Rajpura UG Highwall mining which will be done reducing the OC production from the existing OC capacity of Rajpura OC i.e., 0.50 MTY.
- (ii) **Justification** for 1.00 MTY production from Barmuri OC: There is one working quarry. The total area proposed for quarrying is 39.50 Ha out of which 33.00 Ha has already been worked. Two seams, namely, Kalimati (B-II) and Brindabanpur (B-III) have been worked in the existing quarry. However, Kalimati seam is occurring at a depth of 12 – 14 m from the surface in the area remaining to be worked. The thickness of the seam varies from 8 to 14 m (including intermediate mica periodite inclusion). The gradient of the Kalimati seam is 1 in 12. Owing to the given favourable mining conditions, the output from the mine is proposed to be raised from present capacity of 0.50 MTY to 1.0 MTY in the next few years. Together with reserves still available within the existing quarry, there is in total 3.20 MT of reserves available for extraction at a very favourable stripping ratio varying from 1 : 1.5 to 1 : 2.
- ECL has been given a production target of 50.0 MT in FY 2022-23 out of which it is expected to reach nearly 38.0 MT. To maximize the production, some mines have been identified which are in a position to produce more owing to prevailing favorable conditions in these mines. Barmuri OC is one of these mines which is in a position to produce upto 1.00 MTY.
- (iii) **Justification** for transfer of 33.00 Ha from Kumardhubi UG to Barmuri OC: The area of 33.00 Ha from Kumardhubi UG proposed to be transferred to Barmuri OC is a partially backfilled old abandoned quarry of 24.00 Ha along with an external dump of 9.00 Ha from pre-nationalisation period lying adjacent to Barmuri OC. Since, this 33.00 Ha is OC area it has been adjusted / included with 59.00 Ha of Barmuri OC taking the total area under OC to 92.00 Ha in line with the approved Mine Closure Plan. Since, there is higher rate of ₹ 9.00 Lakh/Ha (as per WPI of Apr'19) for considering Mine Closure Cost for OC as compared to the UG rate of ₹ 1.50 Lakh/Ha (as per WPI of Apr'19), treating this area under OC would lead to having higher corpus for the Mine Closure. However, it is worth mentioning, the existing and proposed mining operation of Barmuri OC will remain within the existing area of 59.00 Ha and the adjusted 33.00 Ha will not be disturbed by the proposed Barmuri OC. So, the adjustment of 33.00 Ha is meant only for having higher corpus to meet the mine closure activity.
- (iv) **Justification** for introduction of Highwall Mining in Rajpura OC and mine life: Due to the present mining constraints like presence of surface features and acquisition of land, advancement of quarry has become difficult and production is reducing from this mine. At the present scenario, the situation is conducive for Highwall Mining to ramp up the production. Hence, highwall mining has been proposed for 2 years to maintain the production level. During this period of 2 years, once

the surface constraints are removed and land acquisitions are done, mining will again continue by OC method.

Life of more than 30 years has been considered in the amendment proposal based on the approved Supplementary note to Revised Mining Plan which has been mentioned in page no. 18, point no. 3.0 in the last para of the attached pdf document. However, this aspect has not been highlighted during the presentation. Supplementary note to Revised Mining Plan communicated along with the application is attached for reference.

39.8.2 The committee observed the following during the EAC meeting:

- i. The EC was granted for Cluster no. 2 group of 3 mixed mines vide letter no. J-11015/37/2011-IA.II (M) dated 16.01.2015 for the production capacity from 0.36(Normative) to 0.45 MTPA (peak) in the MLA of 1018 ha M/s Eastern Coalfield Limited.
- ii. The EC was granted for expansion of Cluster no. 2 group of 3 mixed mines vide letter no. J-11015/37/2011-IA.II (M) dated 16.06.2016 for the production capacity from 0.45 to 1.10 MTPA in the MLA of 1018 ha of M/s Eastern Coalfield Limited.
- iii. The extension of validity of EC to Cluster no. 2 group of 3 mixed mines was granted vide letter no. J-11015/37/2011-IA.II (M) dated 27.05.2021.

39.8.3 *The EAC after deliberations observed that the Project proponent has submitted the proposal for amendment in EC dated 27.05.2021 regarding the changes in production capacity as well as introduction of High wall technology. EAC noted that the project proponent did not submit the modified mining plan as per the proposed amendments. It was also noted that the ambient air quality at Kumardhubi Colliery, Laikdih Area, and Victoria Colliery is not within standard. The Project proponent was advised to rework in order to improve the ambient air quality. At backfilled area plantation has not been done properly, it was still at seedling stage. The project proponent was not able to present the certified compliance report for the EC letter dated 27.05.2021. There are some important condition related to the installation of fixed automatic sprinkler system in the crusher area and Houl road, installation fog canon system and grassing of OB dump to avoid the air borne particles etc.*

During the EAC meeting committee noted that the project has already been granted EC extension letter dated 27.05.2021 the life of mine for four years i.e. till 2025. However, plan is being submitted for period beyond the 2025. The committee emphasized that the proponent should seek the extension of life of mine first before restructuring the mine lease area.

In view of above, EAC observed that PP has to submit the compliance of below mentioned observation for further consideration of the project.

- i. *The PP shall submit the modified mining plan by incorporating all the proposed amendment of cluster no. 2 group of 3 mixed mines.*
- ii. *The PP should submit the clarity upon the life of individual mines and also overall life of mine of Cluster no. 2.*
- iii. *The PP should submit the existing reserves separately for each mine.*
- iv. *The PP should submit the certified compliance report of the EC letter dated 27.05.2021.*

- v. The PP shall submit the details related to the Public Hearing budget and expenditure incurred as well as the amount to be spent in future.
- vi. The PP shall submit the status of EMP budget that has already been spent or will be spent in future.

In view of above, the proposal was *deferred*.

Agenda No. 39.9

Cluster 12 comprising of 15 mixed mines with combined production capacity of 31.83 MTPA (Peak) in ML area of 12,736 ha of M/s Eastern Coalfields Limited located in Raniganj Coalfields Tehsil Haripur Block, District Burdwan (West Bengal) - For Amendment in Environmental Clearance letter dated 09.02.2015 - reg.

[Online proposal No. IA/WB/CMIN/295300/2022; File No. No. J-11015/76/2011-IA-II (M)]

39.9.1 The proposal is for Amendment in Environmental Clearance letter dated 09.02.2015 for Cluster 12 comprising of 15 mixed mines with combined production capacity of 31.83 MTPA (Peak) in ML area of 12,736 ha of M/s Eastern Coalfields Limited located in Raniganj Coalfields Tehsil Haripur Block, District Burdwan (West Bengal).

39.9.2 The EAC during deliberations noted the following:

- i. Environment Clearance for the project was granted to Cluster 12 comprising of 19 mixed mines vide letter no. J-11015/76/2011-II (M) dated 09.02.2015 with production capacity of 27.16 MTPA (normative)/ 31.83 MTPA (peak) in MLA of 13,759.55 ha.
- ii. The 1st amendment of EC was granted to Cluster 12 comprising of 15 mixed mines vide letter no. J-11015/76/2011-II (M) dated 03.03.2016 with production capacity of 31.83 MTPA (peak) in MLA of 12,736 ha.
- iii. The 2nd amendment of EC was granted to Cluster 12 comprising of 15 mixed mines vide letter no. J-11015/76/2011-II (M) dated 31.07.2020 with production capacity of 31.83 MTPA (peak) in MLA of 12,736 ha.

Now, PP has requested for another amendment to increase the production capacity of Sonepur – Bazari OCP from 12.0 to 14.0 MTPA as amendment in Environmental Clearance letter dated 09.02.2015 on the basis that there is no change in the cluster boundary or area and overall production capacity of the cluster which is capped at the existing EC capacity of 31.83 MTY and all proposed changes are within the existing cluster boundary and cluster capacity.

Following has been proposed:

Sl. no.	Name of the Mine / Project	Lease / Project Area (Ha)	Existing EC Capacity (MTY)	Production during FY 2021-22 (MT)	Targeted Production Schedule (MT)			Proposed EC Capacity (MTY)	Balance Life as per EC (years)	Balance Life as per proposal (years)
					2022-23	2023-24	2024-25			

Sl. no.	Name of the Mine / Project	Lease / Project Area (Ha)	Existing EC Capacity (MTY)	Production during FY 2021-22 (MT)	Targeted Production Schedule (MT)			Proposed EC Capacity (MTY)	Balance Life as per EC (years)	Balance Life as per proposal (years)
					2022-23	2023-24	2024-25			
1	Pandaveswar-Dalurband UG & OC	1385.0	2.25	0.27	0.60	0.27	0.40	2.25	>25	>25
2	Manderboni-South Samla UG	1025.0	0.28	0.06	0.075	0.08	0.08	0.28	>25	>25
3	Madhaipur UG & OC	622.0	0.65	0.16	0.31	0.25	0.05	0.65	>25	>25
4	Nutandanga UG	543.0	Production suspended	-	-	-	-	-	-	-
5	Kendra UG	459.0	Production suspended	-	-	-	-	-	-	-
6	Samla UG & OC	676.0	0.60	-	-	-	-	0.60	3	3*
7	Sonepur Bazari OCP	2405.0	12.00	9.62	14.00	14.00	14.00	14.00	13	11
8	Nakrakonda – Kumardih B UG & OC	642.0	4.12	0.65	0.75	1.00	1.20	4.12	>25	>25
9	Kumardihi A UG	457.0	0.20	0.08	0.20	0.20	0.20	0.20	>25	>25
10	Jhanjra UG	1520.0	5.00	3.63	4.00	4.00	4.00	5.00	>25	>25
11	Tilaboni UG	827.47	2.14	0.13	1.00	1.00	1.00	2.14	>25	>25
12	Shyamsundarpur UG	533.0	1.59	0.65	1.20	1.27	1.30	1.59	>25	>25
13	Bankola UG	830.0	0.30	0.17	0.25	0.25	0.25	0.30	>25	>25
14	Kottadih UG & OC	770.0	2.70	1.02	1.90	1.60	1.80	2.70	>25	>25
		12694.47	31.83	15.95	23.30	23.32	23.75	Not to Exceed 31.83 MT		

39.9.3 The EAC after deliberations observed that the project proponent has requested for amendment/restructuring of production capacity by keeping same overall EC capacity and lease area, to increase the production capacity of Sonepur - Bazari OCP from 12.0 to 14.0 MTPA which indirectly enhance the sanctioned EC capacity of 31.83 MTPA vide dated 09.02.2015. However on enquiry PP could explain the exact restricting and adjustment of sonepur-Bazari OCO with other specific mines. In the cluster of mines, almost all the mines are not achieving its targeted capacity. Also, Sonepur-Bazari OCP has reached upto 9.60 MTPA as of now. EAC did not convince from the reason delivered by the project proponent. Therefore, EAC emphasized to rework on the restructuring of the proposals for EC amendment.

During the course of discussion, it was also noted that the air quality was not well within the prescribed limit, hence EAC desired that PP shall collect one-month baseline data and impact assessment for the said mine. Also, the project proponent should submit the CCR from IRO, MOEFCC after complying all the previous EC conditions as well as conditions prescribed in the amendment of EC letter.

It was also noted that while MoEF&CC has issued various Office Memorandum to enable the increase of production capacity from coal, however in this case, PP has been operating only upto 50% of the sanctioned EC capacity. EAC desired that PP must enhance the production rate within its earlier approved production capacity.

In view of the above, EAC observed that PP has to submit the compliance of below mentioned observation for further consideration of the project:

- i. PP shall justify the technical reason for not achieving the rated capacity from its approved sanctioned (EC) capacity and how sonapur-bazari mine will be adjusted once other mines proposed to retain at their sanctioned production capacity. Hence, PP needs to justify the name of mines whose sanctioned production capacity to be lowered in lieu of enhanced production.*
- ii. PP shall submit Certified Compliance report from Ministry's IRO of previous EC conditions.*
- iii. PP shall collect one-month baseline data, impact assessment and submit it with the current photographs authorized by the head of the department.*

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

Agenda No. 39.10

Setting up Coal Washery of 2.5 MTPA in an area of 8 ha (19.77 acres) by M/s Paras Power & Coal Beneficiation Limited at village Ghutku, Tehsil Takhatpur, District Bilaspur (Chhattisgarh) – For Amendment in Environmental Clearance letter dated 22.11.2018 - reg.

[Online proposal No. IA/CG/CMIN/294951/2022; File No. J-11015/238/2010-IA.II (M)]

39.10.1 The proposal is for amendment in Environmental Clearance letter dated 22.11.2018 for Setting up Coal Washery of 2.5 MTPA by M/s Paras Power & Coal Beneficiation Limited at village Ghutku, Tehsil Takhatpur, District Bilaspur (Chhattisgarh).

39.10.2 The EAC during deliberations noted the following:

- i. The EC was granted to Coal washery with production capacity of 2.5 MTPA in the mine lease area of 19.77 acres vide File No. J-11015/238/2010-IA.II (M) Pt dated 22.11.2018.*
- ii. The Amendment in EC was granted vide letter no. J-11015/70/2016-IA.II (M) dated 11.10.2019 with following:
“Transport of raw coal, washed coal and the rejects through road/rail (60% by rail and 40% by road) with the exemption from wagon loading through silo, for a period of one Year”.*

- iii. Further, Amendment in EC was granted vide letter no. J-11015/70/2016-IA.II (M) dated 05.08.2020 with certain terms and conditions

Accordingly, Project Proponent has requested to the Ministry to amend the specific condition no. 3 of EC letter dated 22.11.2018 with following:

“Transportation of coal from mine to the washery shall be carried out through conveyor belts, and then to the prospective consumers/TPP by rail through silo.”

The project proponent has mentioned the reason for the amendment in EC letter dated 22.11.2018 that coal transportation by rail is an efficient & environment friendly mode of transportation but because of the following reasons, presently, maximum coal dispatch from the SECL mines is by road: -

- Limited availability of rakes,
- Limited loading capacity at the sidings, and
- Highly congested existing rail tracks (Two) at Korba towards Champa.

Traffic study was done on the highway abutting to project site which includes transportation from existing coal mines operating in the area. The ambient air quality was monitored at 8 locations during the period March 2022-May 2022. Air quality dispersion modelling was done using the AERMOD software. The maximum incremental GLC was observed in the SW direction. The iso-concentration lines were superimposed on the Google image and the impact

Further, based on deliberations of EAC and as desired by EAC, PP vide its letter 13.01.2023 submitted pointwise reply regarding rakes availability status at SECL railway siding, maintenance plan of existing road toward highway, existing plant running capacity for last six months

39.10.3 *The EAC after deliberation observed that in instant case for transporting coal from mines to washery, the limitation of availability of rakes consistently facing by pp with limited loading capacity at the sidings, and congested rail tracks at Korba towards Champa. It was also seen that from the last six month production data, PP is operating at 0.7 MTPA instead of 2.5 MTPA (granted EC capacity) due to non-availability of rakes from mines. There was also discussions to enhance the road transportation from 60% to 70% but PP expressed unwillingness as he is hardly able achieve the sanctioned capacity due to logistic constraints. The committee also noted that PP is repeated approaching to seek the extension/amendment due to his inability to transport the coal through railway racks.*

In view of above, EAC recommended the amendment in Environmental Clearance dated 22nd November, 2018 for Coal Washery of 2.5 MTPA in project area of 8 ha (19.77 acres) of M/s Paras Power & Coal Beneficiation Limited located Village Ghutku, Tehsil Takhatpur, District Bilaspur, Chhattisgarh to Transport 100% raw coal and rejects by road and 100% washed coal by rail with the following specific conditions as below:-

- i. *PP shall conduct tree plantation (10000 nos) along the transportation route and nearby villages as dust mitigation measures and maintain from its EMP budget.*

- ii. *PP shall not transport through any village road and any other sensitive locations such as schools, hospitals*
- iii. *PP shall only deploy only 55 ton of dumpers/trucks with covered tarpaulin.*
- iv. *PP shall explore to use electrical/CNG dumpers/trucks for transportation (atleast 20% if possible)*
- v. *All other terms and conditions stipulated in the environment clearance (EC) dated 22nd November, 2018 shall apply.*

Agenda No. 39.11

Expansion of Pauni-II Opencast Coal Mining Project from 0.6 MTPA to 3.25 MTPA of M/s Western Coalfields Limited in mine lease area of 1095.52 ha located in District Chandrapur (Maharashtra) – For Amendment in Environmental Clearance letter dated 13.03.2020 - reg.

[Online proposal No. IA/MH/CMIN/295210/2022; File No. J-11015/80/2016-IA.II (M)]

39.11.1 The proposal for amendment in Environmental Clearance letter dated 13.03.2020 for expansion of Pauni-II Opencast Coal Mining Project from 0.6 MTPA to 3.25 MTPA of M/s Western Coalfields Limited in mine lease area of 1095.52 ha located in District Chandrapur (Maharashtra).

39.11.2 The EAC during deliberations noted the following:

- Environment clearance was issued by the Ministry's vide letter No J-11015/80/2016- IA-II (M) for production capacity from 0.6 to 3.25 MTPA in the ML area of 1095.52 ha on 2nd February, 2006. The EC was revalidated as per Ministry's Notification dated 6th April, 2018 on 28.03.2019 for a period of one year. Further extension in validity of EC was issued vide letter dated 13.03.2020.
- Amendment in Environment Clearance was granted by Ministry on 01.12.2020

Now, Project Proponent has requested for amendment in the EC condition stipulated in the letter no. J-11015/80/2016-IA.II (M) dated 01.12.2020 & 01.12.2020 which inter-alia states the following:

Specific condition no. (xii) (Revalidation and Environmental Clearance dated 13.03.2020):

“PP shall not divert proposed nallah till it justifies the reason of diversion”

Specific condition no. iii (EC Amendment letter dated 01.12.2020):

“PP shall implement off pit conveyor system i.e. from Coal Handling Plant to Railway siding with silo loading facility in three years (i.e. 2023)”

The Project proponent has submitted the reason for amendment: The diversion of nallah is required because it passes over the property of Quarry – I OC patch of Pauni – II OC. Without this diversion, Quarry – I patch of Pauni – II OC would have been blocked by over 70%. Further it is submitted that the Quarry – I patch of Pauni - II OC has been planned to be merged with Gauri – Pauni OC to further exploit dip side reserves of about 50 MT. It may be mentioned here that to extract the dip side reserves of Gauri - Pauni Expansion OC, there is no other alternative than the present one.

The Project proponent has submitted the reason for amendment: The said conditions could not be implemented since it is being considered in the overall scheme of Sasti OCP of M/s WCL and thereby remove the road transportation fully by 2025. Also, Pauni II OC mine of Ballarpur Area of WCL does not fall under the CPA of Chandrapur Industrial cluster. Maharashtra Pollution Control Board (MPCB) vide letter no. MPCB/SROC/617/2022 dated 24-11-2022.

39.11.4 The EAC after deliberations observed that the implementation of off pit belt conveyor is still at tendering stage and it was mentioned that the work will be completed till December, 2025 which is showing the ignorance towards the assigned work for the implementation of off pit belt conveyor till 2023. The project proponent was not able to properly justify the reason for the above amendments, instead PP tried to justify the non-implementation by reduction the distance from ~30 to 15 km of road transportation.

In case of the proposed amendment regarding the Nallah diversion, the committee noted that the project proponent has already diverted the part of the Nallah as per the KML file. Committee emphasized to submit the current status of the Nallah with the photographs and complete drone survey of the Nallah alongwith proposed measures for protection of catchment area of stream.

During the course of discussion, the committee noted that the project proponent has submitted an weak proposal without proper justification and non-serious observed towards compliance of EC conditions. Therefore, the committee advised to submit document properly and fix the exact timeline to implement the off pit belt conveyor system with adequate documentary proof.

In view of the above, EAC observed that the PP has to submit the compliance of the below mentioned observation for further consideration of the project:

- i. The PP shall submit the Detailed Project Report and fix the exact timeline to implement the offpit belt conveyor system with allocated budget. Supporting documents of tendering at RFP/technical- financial bid level should be submitted, failing which project shall not be considered.*
- ii. The PP shall submit the photographs and complete drone survey of the already diverted Nallah. Measures taken for protection of catchment area of stream in terms of water recharge and flow of water into the main stream.*
- iii. The PP shall also submit the progressive mine closure plan and PP shall submit the application only after completing the above observations & not before August, 2023.*

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

Agenda No. 39.12

Tirap Opencast Coal Mine Project of capacity 0.75 MTPA with mine lease reduction from 586.91 ha to 571.85 ha of M/s North Eastern Coalfields located in Tehsil Margherita, District Tinsukia (Assam) - Amendment in Terms of Reference dated 27.01.2021 - reg.

[Online proposal No. IA/AS/CMIN/295089/2022; File No. J-11015/134/2018-IA.II (M)]

39.12.1 The proposal for amendment in Terms of Reference dated 27.01.2021 for Tirap Opencast Coal Mine Project of capacity 0.75 MTPA of M/s North Eastern Coalfields in mine project area of 586.91 ha located in Tehsil Margherita, District Tinsukia (Assam).

39.12.2 The EAC during deliberations noted the following:

- i. The Terms of Reference was granted vide letter no. J-11015/134/2018-IA-II(M) dated 27.01.2021 for the production capacity of 0.75 MTPA in the mine lease area of 586.91 ha.
- ii. Now, Project Proponent has requested amendment to incorporate the following changes in the project:
 - a) Reduction in forest land from 289 ha to 40.28 ha due to settlement of Saleki Reserve Forest.
 - b) Reduction in overall area from 586.91 ha to 571.85 ha.

It was noted by EAC that the main reason for this instant amendment is reduction in forest area of the project after final settlement of Saleki RF. Forest area has now reduced from 289 ha to 40.28 ha and with overall mine lease area reduction from 586.91 ha to 571.85 ha.

39.12.3 *The EAC after deliberations observed the proposed amendment in terms of reference for due to change in type of land (Saleki Reserve Forest from 289 ha to 40.28 ha) and thereby reduction in mine lease area from 586.91 ha to 571.85 ha.*

*Based on the above, EAC **recommended** the proposal for amendment in Terms of Reference for the Tirap Opencast Coal Mine Project of capacity 0.75 MTPA in mine project area of 571.85 ha of M/s North Eastern Coalfields located in Tehsil Margherita, District Tinsukia (Assam) with same terms and conditions stipulated in the Terms of Reference dated 27.01.2021, under the provisions of EIA Notifications, 2006 and its amendments therein.*

Agenda No. 39.13

Sahapur East Underground Coal Mine Project 0.70 MTPA Coal production by Underground Semi Mechanized Method in Mine Lease Area of 659 Ha by M/s Chowgule and Company Private Limited located at Villages Chunia, Senduri, Kathotia, Khamaria Kala, Kholhar Tehsil Sohagpur, District Shahdol and Village Khamariya Khurd, Tehsil Pali, District Umaria (Madhya Pradesh) – For Reconsideration for Environmental Clearance- reg.

[Online Proposal No. IA/MP/CMIN/402376/2022; File No. J-11015/280/2010-IA-II(M)]

39.13.1 The proposal for Environmental Clearance for Sahapur East Underground Coal Mine Project 0.70 MTPA Coal production by Underground Semi Mechanized Method in Mine Lease Area of 659 Ha by M/s Chowgule and Company Private Limited located at Villages Chunia, Senduri, Kathotia, Khamaria Kala, Kholhar Tehsil Sohagpur, District Shahdol and Village Khamariya Khurd, Tehsil Pali, District Umaria (Madhya Pradesh).

*The project proponent vide letter dated 09.01.2023 withdraw their proposal and requested to defer for further consideration. Accordingly, EAC agreed and **deferred** the proposal.*

Agenda No. 39.14

Chattarpur I & II Underground Coal Mine Expansion Project (expansion from 0.41 MTPA to 1 MTPA and ML area from 356.37ha to 825.338 ha) of M/s Western Coalfields Ltd. (WCL), located near village Chattarpur, Tehsil Ghoradongri, District Betul, Madhya Pradesh – Regarding Amendment in Environmental Clearance letter dated 27.04.2010 - reg.

[Online proposal No. IA/MP/CMIN/295371/2022; File No. J-11015/194/2008-IA.II (M)]

39.14.1 The proposal is for amendment in Environmental Clearance letter dated 27.04.2010 for Chattarpur I & II Underground Coal Mine Expansion Project (expansion from 0.41 MTPA to 1 MTPA and ML area) of M/s Western Coalfields Ltd. (WCL), located near village Chattarpur, Tehsil Ghoradongri, District Betul, Madhya Pradesh.

39.14.2 The EAC during deliberations noted the following:

- i. The EC was granted vide letter no. J-11015/194/2008-IA.II (M) dated 27.04.2010 for Chattarpur I & II Underground Coal Mine Expansion Project (expansion from 0.41 MTPA to 1 MTPA and ML area from 356.37ha to 825.338 ha) of M/s Western Coalfields Ltd. (WCL), located near village Chattarpur, Tehsil Ghoradongri, District Betul, Madhya Pradesh.
- ii. Forest land involved – 239.201 Ha.

Area (in Ha)	FC issued vide letter no. & date	Validity period of FC
91.03 ha	i) FC no. 8-104/97-FC dtd. 12.11.1999 ii)MPC003/2017-BHO/124 08.02.2019 & 20.12.2019	30
123.345 ha.	i)FC No.8-104/97-FC dated 12.11.1999 ii)FC No. 8-95/2000-FC dtd.20.3.2001	30

The remaining forest land of 24.826 ha is not to be worked.

- iii. The project proponent has requested Ministry for the amendment in one of the General condition of the EC letter dated 27.04.2010 with following:
“No change in mining technology and scope of working shall be made without prior approval of the MoEF&CC”.
- iv. The project proponent has proposed amendment in EC for deployment of Continuous Miner for augmentation of present level of Production. There will be no change in the mining method; the project will continue to be Bord & Pillar with caving. The continuous miner (CM) will be deployed in one of the districts/grids of Chhatarpur I UG mine.

The project proponent has submitted the justification for Amendment in EC : The deployment of Continuous miner set in one of the districts in Chattarpur – I & II UG Coal Mine Expn., the production is likely to get increased but the same will be contained within the sanctioned EC capacity without any other changes in the mine parameters leading to bridge the gap between demand & supply

to the extent of production. It is proposed to deploy Continuous Miner set in one of the district / panels of Chattarpur I & II UG Coal Mine Expn. through outsourcing basis / Contract basis. The deployment of CM set will be along with the regular operations keeping the method of work same i.e. Bord & Pillar, drilling, blasting, coal loading by LHDs and coal transportation upto surface through combination of conveyors of the Chattarpur – I & II UG Coal Mine Expn.

39.14.3 The EAC after deliberation observed that the proposal for the amendment in EC vide letter dated 27.04.2010 for deployment of Continuous Miner in Chattarpur – I & II UG Coal Mine. The instant technology is efficient and environment friendly and also increase the rate of production. PP has committed to stick to the EC capacity and thereby no changes in production or mine lease is being sought.

EAC recommended the proposal for the deployment of Continuous Miner in the underground coal mine after amendment in the General condition no. (i) in the EC for Chattarpur I & II Underground Coal Mine Expansion Project (expansion from 0.41 MTPA to 1 MTPA and ML area from 356.37ha to 825.338 ha) of M/s Western Coalfields Ltd. (WCL), located near village Chattarpur, Tehsil Ghoradongri, District Betul, Madhya Pradesh under the provisions of EIA Notifications, 2006 and its amendments therein with the following conditions:

- (i) PP shall submit the certificate from Directorate General of Mines Safety (DGMS) for all the safety concerns to IRO, MoEFCC.*
- (ii) PP shall obtain Certified Compliance Report from Ministry's IRO for compliance of EC conditions.*

Agenda No. 39.15

Wet Type Coal Washery Project based on Heavy Media Cyclone of production capacity 2.5 MTPA in an area of 15 acres of M/s R.K Transport & Constructions Limited located at Village Gorbi, Tehsil Chitrangi, District Singrauli (Madhya Pradesh) — For Amendment in Environmental Clearance letter dated 25.05.2022 — reg.

[Online proposal No. IA/MP/CMIN/296133/2022; File No. IA-J-11015/21/2020-IA.II (M)]

39.15.1 The proposal is for Amendment in Environmental Clearance letter dated 25.05.2022 for Wet Type Coal Washery Project based on Heavy Media Cyclone of production capacity 2.5 MTPA in an area of 15 acres of M/s R.K Transport & Constructions Limited located at Village Gorbi, Tehsil Chitrangi, District Singrauli (Madhya Pradesh).

39.15.2 The Committee during deliberations noted the following:

- i. The EC was granted to project on 25.05.2022 for Wet Type Coal Washery Project based on Heavy Media Cyclone of production capacity 2.5 MTPA in an area of 15 acres of M/s R.K Transport & Constructions Limited located at Village Gorbi, Tehsil Chitrangi, District Singrauli (Madhya Pradesh).
- ii. The project proponent has requested Ministry for amendment in EC for the following:

- Specific Condition no. (xvi): *“Transportation of raw coal should be done by closed conveyor belt uphill railway siding as no road transportation will allowed”*.
 - Standard Condition no. 4.1 (b) (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”*.
- iii. PP requested that transportation of total raw coal by road through covered trucks from mines to washery and Transportation of washed coal and reject will be through road/rail (60% by rail and 40% by road) with the exemption from wagon loading through silo.
- iv. The project proponent has submitted the following reason for the amendment:
- The ROM coal from NCL mines mainly from Gorbi/Block B, Jayant Coal Mine and Dudhichua Coal and other mines.
 - Washed coal from the plant will be transported by road in covered trucks directly to the customer (or) by road upto nearest railway station (Manadiya Railway siding–2.8 Kms towards West direction and Singrauli station Railway Siding is at 2.6 kms towards East direction) and from there by rail to the customer.
 - Washery rejects from the plant will be transported by road in covered trucks directly to the customer (or) by road upto nearest railway station nearest railway station (Manadiya Railway siding–2.8 Kms towards West direction and Singrauli station Railway Siding is at 2.6 kms towards East direction) and from there by rail to the customer.
 - Further, based on deliberation in EAC and as desired, PP vide its letter dated 13th January, 2023 submitted point wise reply of its observation. It has been submitted that 6.18 acres out of total 15 acres of project area (i.e. 41.20%) shall be developed as green belt. It was committed to develop 2500/trees per hectare and with other control measures. PP submitted that gross fleet capacity during operation phase will be 55 ton which can transport approx 40 ton of ROM of coal. Further, MoU between Project Proponent and Hindalco Industries for washed coal/rejects was submitted.

39.15.3 The EAC after deliberation observed that the instant proposal is specifically for relaxation in transportation of raw coal, washed coal and reject by road and rail combination instead of railways only. The project area is near to coal mines of M/s Northern Coalfields Limited and all the raw coal will be sourced from these mines only. Further, EAC observed that project site is well connected to road network of NH-39 and Jayant-Morwa road from the project site and rail network of Manadiya Railway siding at 2.8 Kms towards West direction and Singrauli station Railway Siding at 2.6 kms towards East direction. Also, after due deliberation and written submission by PP to reduce the number of trucks by deploying higher size of dumpers/trucks. EAC agreed to the submission regarding the gross fleet size of 55 ton to be used for the transportation of approx 40 ton of RoM coal and RKTC

and Hindalco industries have signed the MoU for transportation of clean coal/rejects from washery plant.

In view of the above, EAC agreed for the transportation of total raw coal from mine to washery through road with covered trucks only from mines of M/s NCL and Transportation of washed coal and reject will be through 60% by rail and 40% by road with the exemption from wagon loading through silo.

Based on the above, EAC **recommended** the proposal for amendment in Environmental Clearance for Wet Type Coal Washery Project based on Heavy Media Cyclone of production capacity 2.5 MTPA in an area of 15 acres of M/s R.K Transport & Constructions Limited located at Village Gorbi, Tehsil Chitrangi, District Singrauli (Madhya Pradesh) with conditions for transportation of total raw coal from mine to washery through road with covered trucks only from mines of M/s NCL and Transportation of washed coal and reject will be through 60% by rail and 40% by road with the exemption from wagon loading through silo with all other terms and conditions stipulated in the Environmental Clearance dated 25.05.2022 shall remain same.

- i. PP shall develop green belt in an area of 6.18 acres out of total 15 acres of project area (i.e. 41.20%) within 2 years.
- ii. PP shall conduct tree plantation (1000 nos) along the transportation route and nearby villages as dust mitigation measures except that of National Highways and maintain from its EMP budget.
- iii. PP shall not transport through any village road and any other sensitive locations such as schools, hospitals
- iv. PP shall only deploy only 55 ton of dumpers/trucks with covered tarpaulin.
- v. State Pollution Control Board shall stipulate necessary conditions in order to maintain the ambient air quality of the area.
- vi. All other terms and conditions stipulated in the environment clearance (EC) dated 25th May, 2022 shall apply.

Agenda No. 39.16

Gondkhari Underground Coal Mine (Kamptee Coalfield) of Production Capacity 2 MPTA (rated capacity)/3.0 MTPA (Peak capacity) in the mine lease area of 862.00 Ha of M/S Adani Power Maharashtra Limited (APML) located at Village Gondkhari, Tehsil Kalmeshwar, District Nagpur (Maharashtra) - For Terms of Reference –reg.

[Online proposal No. IA/MH/CMIN/401870/2022; File No. IA-J-11015/46/2022-IA.II(M)]

39.16.1 The proposal is for Terms of Reference to Gondkhari Underground Coal Mine (Kamptee Coalfield) of Production Capacity 3.0 MTPA (Peak) in the mine lease area of 862.00 Ha of M/S Adani Power Maharashtra Limited (APML) located at Village Gondkhari, Tehsil Kalmeshwar, District Nagpur (Maharashtra).

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

- (i) The project area is covered under Survey of India Topo Sheet No 55K/16 (New-F44M16) and is bounded by the geographical coordinates ranging from 210 07' 57.737"N to 210 10' 55.196" N and longitudes 780 54" 45" E to 780 56" 26"E.
- (ii) Coal linkage of the project is allocated 18.11.2021 under the commercial coal mining auction process for sale of coal, allotment order vide Letter No. NA-104/7/2021-NA dated: 18 November 2021.
- (iii) Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC's vide its OM dated 13th January, 2010 has imposed moratorium on grant of environment clearance.
- (iv) Employment generation, Direct and Indirect employment to 863 Persons will be provided from the project.
- (v) The project is reported to be beneficial in terms of energy security for the development of country.
- (vi) Total mining lease area as per block allotment is 862ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved Ministry of Coal, Government of India on 22.12.2022.
- (vii) The land usage pattern of the project is as follows:

Pre-mining land use details (Area in 862 Ha)

S. no.	Ownership	Type of land (Within Mine lease)	Area (ha)
1	Tenancy Land	Agricultural	687.347
2		Barren	
3		Water bodies	
4		Road	
5		Community	
A	Sub-Total		687.347
1	Govt Non-Forest Land	Agricultural	87.301
2		Barren (Road)	
3		Other	
B		Sub total	87.301
1	Forest Land	Revenue Forest land	87.351
C	Sub total		87.351
	Grand Total (A+B+C))		862.00

Post Mining

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

Excavation Area	-	-	-	-	-	-	-	-	-
Backfilled Area (in Excavation Area)	-	-	-	-	-	-	-	-	-
Excavated Void (in Excavation Area)	-	-	-	-	-	-	-	-	-
Topsoil Dump	-	-	-	-	-	-	-	-	-
External Dump	-	-	-	-	-	-	-	-	-
Safety Zone	-	-	-	-	-	-	-	-	-
Haul Road between quarries	-	-	-	-	-	-	-	-	-
Road diversion	-	-	-	-	-	-	-	-	-
Settling pond	0.08	0.08	0.08	-	-	-	-	-	0.08
Road & Infrastructure area	13.845	13.845	13.845	-	-	-	-	-	13.845
Garland drains				-	-	-	-	-	
Embankment	0.075	0.075	0.075	-	-	-	-	-	0.075
Green Belt	2	2	2	-	-	-	-	-	2.000
Water Reservoir				-	-	-	-	-	
UG entry	2	2	2	-	-	-	-	-	2.000
Total (excluding rights for UG mine) (1)	18	18	18	-	-	-	-	-	18
Undisturbed/UG mining right (2)	844	-	-	-	-	-	-	-	844.00
Grand Total (1+2)	862								862.00

- (viii) Total geological reserve reported in the mine lease area is 98.5030 MT with 52.496 MT mineable reserve. Out of total mineable reserve of 52.596 MT, 42.946 MT are available for extraction. Percent of extraction is 43.5990%.
- (ix) 4 seams with thickness ranging from 0.93 m to 5 m are workable. Grade of coal is G8 while gradient is 90 to 220.
- (x) Method of mining operations envisages by Underground Mining: Longwall retreating method with caving by deploying DERDS and Road Headers for tunneling.
- (xi) Life of mine is 30 years. (Including construction).
- (xii) Transportation of coal has been proposed by series of conveyors in mine pit head, from surface to siding by Conveyor/Trucks and at sidings by Haulage trucks.
- (xiii) 87.351 ha of forest land has been reported to be involved in the project. Approval under the Forest (Conservation) Act, 1980 for diversion of 87.351 ha of forest land for non-forestry purposes has been submitted dated 06.01.2023.
- (xiv) Please mention any National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones fall within 10 km boundary of the project. -Not applicable.
- (xv) Wildlife conservation plan for schedule – I species has been submitted –Not Applicable
- (xvi) The ground water level has been reported to be varying between 0.08 m bgl to 15.59 m bgl during pre-monsoon and between 0.60 m bgl to 10.60 m bgl during post-monsoon.
- (xvii) Total water requirement for the project is 496 KLD. (436 KLD from mine seepage and 60 KLD from borewell).
- (xviii) Application for obtaining the approval of the Central Ground Water Authority to be submitted.
- (xix) No River/nalla is flowing within the boundary of lease. The nallah will be/not be diverted In consultation with the Water Resource Department of the State Government. -No Nala diversion is proposed.
- (xx) No court cases, violation cases are pending against the project of the PP.
- (xxi) The project does not involve violation of the EIA Notification, 2006 and amendment issued thereunder. The coal production from the mine was started from the year onwards. No excess production of coal from the sanctioned capacity has been realized since the commencement of mining operations.
- (xxii) The project involves no project affected families. R&R of the PAPs will be done as per prevailing laws.
- (xxiii) Total cost of the project is Rs. 130300 lakhs. Cost of production is Rs 2800/- per tonne., CSR cost is Rs. 5/- per tonne, R&R cost if applicable. Environment Management Cost is: Capital Rs.10 crores; & Recurring 2.5 crores.

39.16.3 The Committee during deliberations noted the following:

- i. The project proponent has submitted the application for the Forest clearance for diversion of involved forest land of 87.351 ha vide proposal no. FP/MH/MIN/QRY/408247/2022 dated 06th January 2023.
- ii. Life of mine is 30 years.

- iii. The Project Proponent has submitted the approved mining plan and mine closure plan for Gondkhari Coal Mine vide letter dated 22.12.2022 for rated capacity of 2 MTPA and peak capacity of 3 MTPA.

39.16.4 The EAC after deliberation observed that the instant proposal is a green field underground coal mine project wherein no surface activity will be conducted except that of mining infrastructure, shaft/incline, storage etc. It was observed that there are more than 2 waterbodies available inside as well as outside the mine lease area. EAC desired PP to make all effort to rejuvenate the water bodies and shall propose to treat the water before supplying to the nearby villagers. EAC emphasized that the 87.351 ha of forest land lying inside the project area should not be disturbed to develop any type infrastructure. A hydrogeological study has been proposed for the mine lease area. A study must be conducted to reduce road transportation distance and EAC also suggested an option study for the transportation including the option of railway siding for rail transportation.

Based on the above discussion, EAC **recommended** the proposal for Terms of Reference for Gondkhari Underground Coal Mine (Kamptee Coalfield) of Production Capacity 2 MPTA (rated capacity)/3.0 MTPA (Peak capacity) in the mine lease area of 862.00 Ha of M/S Adani Power Maharashtra Limited (APML) located at Village Gondkhari, Tehsil Kalmeshwar, District Nagpur (Maharashtra) with following additional specific conditions to be followed:

- (i) Public Consultation, including public hearing, shall be conducted through concerned SPCB in the concerned districts as per the provisions/procedure contained in the EIA Notification, 2006 for information of the stakeholders about the present coal mining operations inviting comments and their redressal.
- (ii) The PP shall submit the lake rejuvenation plan to conserve the existing water bodies in core zone as well as in Buffer Zone.
- (iii) The PP shall submit the transportation related option study to optimize the transportation system through rail/road.
- (iv) PP shall submit Letter of Intent from concerned State Government based on allocation of coal block from Ministry of Coal.
- (v) PP to submit the Mining plan approved by the Ministry of Coal for the peak capacity of 3 MTPA.
- (vi) Forest Clearance of total 87.351 ha for diversion for non-forestry activity shall be submitted.
- (vii) PP should submit the real time aerial footage and video of the Mining lease area made through drone with a special focus on the area adjacent to the rivers.
- (viii) PP shall not plan any non-essential infrastructure of mining operation on non-coal bearing forest area.
- (ix) PP shall conduct detailed study the subsidence, its impact due to mining activity and propose mitigation/management measures.
- (x) PP shall submit detailed project report for implementation of railway siding for evacuation of coal with its target date of completion. Forest Clearance shall be submitted if railway siding land comes under forest land.
- (xi) Wind rose pattern in the area should be reviewed and accordingly location of AAQMS shall be planned by the collection of air quality data. 12 nos of Monitoring location for collecting

- baseline data should cover overall the 10 km buffer zone i.e. dispersed in 10 km buffer area.*
- (xii) Project proponent to prepare Environmental Cost Benefit Analysis for the project in EIA/EMP Report.*
 - (xiii) PP shall provide the details of mining technology/methodology proposed to be adopted for coal mining operations and its associated environmental benefits of using from Climate Change perspective.*
 - (xiv) Detailed Social Impact Assessment shall be prepared in villages for Rehabilitation and Re-settlement. R &R Activity shall be proposed with timeline and allotted fund with the approval of District Commissioner/collector. A need based sample survey, family-wise, should be undertaken to assess their requirements, and action programs prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government.*
 - (xv) Permission for ground water withdrawal shall be obtained from Central Ground Water Authority (CGWA) only for mining activity.*
 - (xvi) Heavy metals including other parameters in surface water quality shall be analyzed and provided in EIA Report. Further, detailed mineralogical and chemical composition of the mineral and percentage of free silica from a NABL/MoEF&CC accredited laboratory.*
 - (xvii) 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.*
 - (xviii) PP shall propose to use LNG/CNG based mining machineries and trucks for mining operation and transportation of coal.*
 - (xix) PP shall submit letter from Principal Chief Conservator of Forest, State Government that the area does not falls under any Eco-sensitive zone and areas and further is no corridor of Elephants & Tigers. Also, It should include with certified map with exact distance from any Wildlife Sanctuary.*
 - (xx) Impact of proposed project/activity on hydrological regime of the area shall be assessed and report be submitted. Hydrological studies as per GEC 2015 guidelines to be prepared and submitted.*

The meeting with vote of thanks

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/PM2.5) 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 airborne 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- 20012/1/2006-1A.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/GoI Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved Mining Plan and as per the permission of DGMS or any other authority as prescribed by the law.
 - (xi) The project proponent shall take all precautionary measures to ensure riverine/riparian ecosystem in and around the coal mine up to a distance of 5 km. A riverine/riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government.
- (d) Noise and Vibration monitoring and prevention**
- (i) Adequate measures shall be taken for control of noise levels as per Noise Pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard.

Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.

- (ii) Controlled blasting techniques shall be practiced in order to mitigate ground vibrations, fly rocks, noise and air blast etc., as per the guidelines prescribed by the DGMS.
- (i) The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

(e) Mining Plan

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

(f) Land reclamation

- (i) Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change (MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).
- (ii) The final mine void depth should preferably be as per the approved Mine Closure Plan, and in case it exceeds 40 m, adequate engineering interventions shall be provided for sustenance of aquatic life therein. The remaining area shall be backfilled and covered with thick and alive top soil. Post-mining land be rendered usable for agricultural/forestry purposes and shall be diverted. Further action will be treated as specified in the guidelines for Preparation of Mine Closure Plan issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.
- (iii) The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conformity with the “during mining”/“post mining” land-use pattern, which is an integral part of the approved Mining Plan and the EIA/EMP submitted to this Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the MOEFCC/RO.
- (iv) Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3rd November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, along with fly ash for external dump of overburden, backfilling of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.

- (v) Further, it may be ensured that as per the time schedule specified in mine closure plan it should remain live till the point of utilization. The topsoil shall temporarily be stored at earmarked site(s) only and shall not be kept unutilized. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be stabilised with native grass species to prevent erosion and surface run off. The other overburden dumps shall be vegetated with native flora species. The excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change/ Regional Office.
- (vi) The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.
- (g) Green Belt**
 - (i) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered/endemic flora/fauna, if any, spotted/reported in the study area. The Action plan in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.
 - (ii) Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the mine lease area as soon as possible. The green belt comprising a mix of native species (endemic species should be given priority) shall be developed all along the major approach/ coal transportation roads.
- (h) Public hearing and Human health issues**
 - (i) Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & its RO on six-monthly basis.
 - (ii) The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, as amended time to time.
 - (iii) Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
 - (iv) Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.
 - (v) The project proponent shall follow the mitigation measures provided in this Ministry's

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'.

(i) Corporate Environment Responsibility

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

(j) Miscellaneous

- (i) The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- (ii) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- (iii) The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- (iv) The project proponent shall monitor the criteria pollutants level namely; PM₁₀, SO₂, NO_x(ambient levels) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the

company.

- (v) The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- (vi) The project proponent shall follow the mitigation measures provided in this Ministry's 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'.
- (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, from time to time, and as applicable to the project
- (ii) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
- (iii) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- (iv) The project proponent shall prepare a Site-Specific Conservation Plan / Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (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 be 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- 20012/1/2006-1A.11 (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.
- iii. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be

carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.

- iv. Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.
- v. Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.
- vi. The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the mine. The embankment constructed along the river/nallah boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side, stabilized with plantation so as to withstand the peak water pressure preventing any chance of mine inundation.
- vii. Garland drains (of suitable size, gradient and length) around the critical areas
- i.e. mine shaft and low lying areas, shall be designed keeping at least 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. The sump capacity shall also provide adequate retention period to allow proper settling of silt material of the surface runoff
- viii. The water pumped out from the mine, after siltation, shall be utilized for industrial 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/GoI Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved mining plan and as per the permission of DGMS.
- xii. The project proponent shall take all precautionary measures to ensure reverian/ riparian

ecosystem in and around the coal mine upto a distance of 5 km. A 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 equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms/guidelines in this regard. Progress in usage of such accessories to be monitored. Adequate awareness programme for users to be conducted.
- ii. The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

V. Mining Plan

- i. Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.
- ii. No change in mining method i.e. UG to OC, calendar programme and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC).
- iii. Mining shall be carried out as per the approved mining plan (including mine closure plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).
- iv. Underground work place environmental conditions shall be rendered ergonomic and air breathable with adequate illumination in conformance with DGMS standards.
- v. No mining activity shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980 and also adhering to The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 read with provisions of Indian Forest Act, 1927.
- vi. Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.

VI. Land reclamation

- i. Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change (MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).
- ii. Post-mining land be rendered usable for agricultural/forestry purposes and shall be handed over to the respective State Government, as specified in the Guidelines for Preparation of Mine Closure Plan, issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.
- iii. Regular monitoring of subsidence movement on the surface over and around the working areas and its impact on natural drainage pattern, water bodies, vegetation, structure, roads and surroundings shall be continued till movement ceases completely. In case of

observation of any high rate of subsidence beyond the limit prescribed, appropriate effective mitigation measures shall be taken to avoid loss of life and materials. Cracks should be effectively plugged in with ballast and clay soil/suitable material.

- iv. Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3rd November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, 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 greenbelt comprising of a mix of native species shall be developed all along the major approach roads/ coal transportation roads.

VIII. Public hearing and Human health issues

- i. Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored.
- ii. The Project Proponent shall undertake Occupational Health survey for initial and Periodical medical examination of the workers engaged in the Project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS Circulars. Besides carrying out regular periodic health check-up of their workers, 20% of the workers engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any.
- iii. Personnel (including outsourcing employees) working in dusty areas shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.
- iv. Skill training as per safety norms specified by DGMS shall be provided to all workmen

- including the outsourcing employees to ensure high safety standards in mines.
- v. Effective arrangement shall be made to provide and maintain at suitable points conveniently situated, a sufficient supply of drinking water for all the persons employed.
- vi. Implementation of Action Plan on the issues raised during the Public Hearing shall be ensured. The Project Proponent shall undertake all the tasks as per the Action Plan submitted with budgetary provisions during the Public Hearing. Land oustees shall be compensated as per the norms laid out R&R Policy of the Company/ or the National R&R Policy/ R&R Policy of the State Government, as applicable
- vii. The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

IX. Corporate Environment Responsibility

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

X. Miscellaneous

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.

- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearanceportal.
- 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,

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. (incase of the presence of schedule-I species in the study area)
- (iv) The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.
- (v) The project proponent shall obtain the necessary permission from the Central Ground Water Authority.
- (vi) Solid waste/hazardous waste generated in the washery needs to addressed in accordance to the Solid Waste Management Rules, 2016 / Hazardous & Other Waste Management Rules,2016.
- (vii) Coal beneficiation practices shall be carried out under strict adherence to provisions of the Factories Act, 1957 and subordinate legislations made there under.

II. Air quality monitoring and preservation

- i. Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely particulates, 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 established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM₁₀, PM_{2.5}, SO₂ and NO_x. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.
 - iii. Transportation of coal by road shall be carried out by covered trucks/conveyors. The transportation of clean coal and rejects shall be by rail with wagon loading through silo. Effective measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulates such as roads, belt conveyors, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled at source. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central/State Pollution Control Board
 - iv. All approach roads shall be black topped and internal roads shall be concreted. The roads shall be regularly cleaned. Coal transportation shall be carried out by covered trucks.
 - v. Covered trucks shall be engaged for mineral transportation outside the washery 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-20012/1/2006-1A.11 (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for compliance.
- iii. Industrial waste water shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time.
- iv. The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the washery. The embankment constructed along the river/nallah boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side stabilised with plantation so as to withstand the peak water pressure preventing any chance of inundation.
- v. Heavy metal content in raw coal and washed coal shall be analysed once in a year and records maintained thereof.
- vi. The rejects should preferably be utilized in FBC power plant or disposed off through sale for its gainful utilization. If the coal washery rejects are to be disposed off, it should be done in a safe and sustainable manner with adequate compaction and post closure arrangement to avoid water pollution due to leachate from rejects and surface run off from reject dumping sites.
- vii. An Integrated Surface Water Management Plan for the washery area up to its buffer zone considering the presence of any river/rivulet/pond/lake etc. with impact of coal washing activities on it, shall be prepared, submitted to MoEFCC and implemented.
- viii. Waste Water shall be effectively treated and recycled completely either for washery operations or maintenance of green belt around the plant.
- ix. Rainwater harvesting in the washery premises shall be implemented for conservation and augmentation of ground water resources in consultation with Central Ground Water Board.
- x. No ground water shall be used for coal washing unless otherwise permitted in writing by competent authority (CGWA) or MoEFCC. The make-up water requirement of washery should not exceed 1.5 m³/tonne of raw coal.
- xi. Regular monitoring of ground water level and quality shall be carried out in and

around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO. 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 neighbouring stakeholders. A 3-tier green belt comprising of a mix of native species or tree species with thick leaves shall be developed along vacant areas, storage yards, loading/transfer points and also along internal roads/main approach roads.
- ii. The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble

Supreme Court with regard to acquiring grazing land.

VII. Public hearing and Human health issues

- i. Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & its RO on six-monthly basis. 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.II (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

VIII. Corporate Environment Responsibility

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders /stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- v. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

IX. Miscellaneous

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

- xi. No change in coal beneficiation process and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC) with such conditions mentioned therein. No change in the maximum quantum of raw material feed per annum against the approved washery capacity shall be made
- 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 Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- xvii. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within 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 its environmental impacts. Preference should be given to the site located at pit head; in case such a site is not available, the site should be as close to the pit head as possible and coal should be transported from mine to the washer preferably through closed conveyor 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, SO_x and NO_x, noise, water (surface and groundwater), soil be submitted.
- ix. The wet washery should generally utilize mine water only. In case mine water is not available, the option of storage of rain water and its use should be examined. Use of surface water and ground water should be avoided.
- x. Detailed water balance should be provided. The break-up of water requirement as per different activities in the mining operations vis-a-vis washery should be given. If the source of water is from surface water and/or ground water, the same may be justified besides obtaining approval of the Competent Authority for its drawl.
- xi. The entire sequence of mineral production, transportation, handling, transfer and storage of mineral and waste, if any, and their impacts on air quality should be shown in a flow chart with specific points where fugitive emissions can arise and specific pollution control/mitigative measures proposed to be put in place. The washed coal and rejects should be transported 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-11013/25/2014-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. Therejects 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 conveyer belt. If it is far away, the transportation should be by rail as far as possible.
- xviii. Copies of MOU/Agreement with linkages (for stand-alone washery) for the capacity for which EC is being sought should be submitted.
- xix. Corporate Environment Responsibility:
 - a) The Company must have a well laid down Environment Policy approved by the Board of Directors.
 - b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.
 - c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.
 - d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.
- xx. A detailed action Plan for Corporate Social Responsibility for the project affected people and people living in and around the project area should be provided.

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

GENERIC TOR FOR AN OPENCAST COALMINE PROJECT for EC

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

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

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 28° angle as the ultimate slope should be given. Sections of final dumps (both longitudinal and cross section) with relation to the adjacent area should be shown.
- (xxviii) Efforts be made for maximizing progressive internal dumping of O.B., sequential mining, external dump on coal bearing area and later rehandling into the mine void. --to reduce land degradation.
- (xxix) Impact of change in land use due to mining operations and plan for restoration of the mined area to its original land use should be provided.
- (xxx) Progressive Green belt and ecological restoration /afforestation plan (both in text, figures and in the tabular form as per the format of MOEFCC given below) and selection of species (native) based on original survey/land-use should be given.

Table 1: Stage-wise 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 mine life)*
1.	Backfilled Area Reclaimed with plantation)					
2.	Excavated Area (not reclaimed)/void					
3.	External OB dump Reclaimed with plantation)					
4.	Reclaimed Top soil dump					
5.	Green Built Area					
6.	Undisturbed area(brought under plantation)					
7.	Roads (avenue plantation)					
8.	Area around buildings and Infrastructure					
	TOTAL					

* As a representative example

Table 2 : Stage Wise Cumulative Plantation

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

* As a representative example

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

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

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

(xxxii) Flow chart of water balance should be provided. Treatment of effluents from workshop, township, domestic wastewater, mine water discharge, etc. should be provided. Details of STP in colony and ETP in mine should be given. Recycling of water to the max. possible extent should be done.

(xxxiii) Occupational health issues. Baseline data on the health of the population in the impact zone and measures for occupational health and safety of the personnel and manpower in the mine should be given.

(xxxiv) Risk Assessment and Disaster Preparedness and Management Plan should be provided.

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

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

(xxxvii) Details of R&R. Detailed project specific R&R Plan with data on the existing socio-economic status of the population (including tribals, SC/ST, BPL families) found in the study area and broad plan for resettlement of the displaced population, site for the

resettlement colony, alternate livelihood concerns/employment for the displaced people, civic and housing amenities being offered, etc and costs along with the schedule of the implementation of the R&R Plan should be given.

(xxxviii) CSR Plan along with details of villages and specific budgetary provisions (capital and recurring) for specific activities over the life of the project should be given.

(xxxix) Corporate Environment Responsibility:

- a) The Company must have a well laid down Environment Policy approved by the Board of Directors.
 - b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.
 - c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.
 - d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.
- (xl) Details on Public Hearing should cover the information relating to notices issued in the newspaper, proceedings/minutes of Public Hearing, the points raised by the general public and commitments made by the proponent and the action proposed with budgets in suitable time frame. These details should be presented in a tabular form. If the Public Hearing is in the regional language, an authenticated English Translation of the same should be provided.
- (xli) In built mechanism of self-monitoring of compliance of environmental regulations should be indicated.
- (xlii) Status of any litigations/ court cases filed/pending on the project should be provided.
- (xliii) Submission of sample test analysis of Characteristics of coal: This should include details on grade of coal and other characteristics such as ash content, S and heavy metals including levels of Hg, As, Pb, Cr etc.
- (xliv) Copy of clearances/approvals such as Forestry clearances, Mining Plan Approval, mine closer plan approval. NOC from Flood and Irrigation Dept.(if req.), etc. wherever applicable.

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

TOTAL ML/PROJECT AREA (ha)	TOTAL FORESTLAND AND (ha)	Date of FC	Extent of forestland	Balance area for which FC is yet to be obtained	Status of appl for. diversion of forest land

		If more than, provide details of each FC			
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ANNEXURE -VI

GENERIC TORs FOR AN UNDERGROUND COAL MINE PROJECT

- (i) An EIA-EMP Report shall be prepared for MTPA rated capacity in an ML/project area of ha based on the generic structure specified in Appendix III of the EIA Notification, 2006.
- (ii) An EIA-EMP Report would be prepared for MTPA rated capacity to cover the impacts and environment management plan for the project specific activities on the environment of the region, and the environmental quality encompassing air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts including prediction modeling for MTPA of coal production based on approved project/Mining Plan for MTPA. Baseline data collection can be for any season (three months) except monsoon.
- (iii) A Study area map of the core zone (project area) and 10 km area of the buffer zone (1: 50,000 scale) clearly delineating the major topographical features such as the land use, surface drainage pattern including rivers/streams/nullahs/canals, locations of human habitations, major constructions including railways, roads, pipelines, major industries/mines and other polluting sources. In case of ecologically sensitive areas such as Biosphere Reserves/National Parks/WL Sanctuaries/ Elephant Reserves, forests (Reserved/Protected), migratory corridors of fauna, and areas where endangered fauna and plants of medicinal and economic importance found in the 15 km study area should be given.
- (iv) Map showing the core zone delineating the agricultural land (irrigated and un-irrigated, uncultivable land as defined in the revenue records, forest areas (as per records), along with other physical features such as water bodies, etc should be furnished.
- (v) A contour map showing the area drainage of the core zone and 25 km of the study area (where the water courses of the core zone ultimately join the major rivers/streams outside the lease/project area) should also be clearly indicated in the separate map.

- (vi) A detailed Site plan of the mine showing the proposed break-up of the land for mining operations such as the quarry area, OB dumps, green belt, safety zone, buildings, infrastructure, CHP, ETP, Stockyard, township/colony (within and adjacent to the ML), undisturbed area -if any, and landscape features such as existing roads, drains/natural water bodies to be left undisturbed along with any natural drainage adjoining the lease /project areas, and modification of thereof in terms of construction of embankments/bunds, proposed diversion/re-channelling of the water courses, etc., approach roads, major haul roads, etc should be indicated.
- (vii) Original land use (agricultural land/forestland/grazing land/wasteland/waterbodies) of the area should be provided as per the tables given below. Impacts of project, if any on the land use, in particular, agricultural land/forestland/grazing land/water bodies falling within the lease/project and acquired for mining operations should be analyzed. Extent of area under surface rights and under mining rights should be specified.

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

Area under Surface Rights

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

- (viii) Study on the existing flora and fauna in the study area (10km) should be carried out by an institution of relevant discipline. The list of flora and fauna duly authenticated separately for the core and study area and a statement clearly specifying whether the study area forms a part of the migratory corridor of any endangered fauna should be given. If the study area has endangered flora and fauna, or if the area is occasionally visited or used as a habitat by Schedule-I species, or if the project falls within 15 km of an ecologically sensitive area, or used as a migratory corridor then a Comprehensive Conservation Plan along with the appropriate budgetary provision should be prepared and submitted with EIA-EMP Report; and comments/observation from the CWLW of the State Govt. should also be obtained and furnished.
- (ix) Details of mineral reserves, geological status of the study area and the seams

to be worked, ultimate working depth and progressive stage-wise working scheme until the end of mine life should be provided on the basis of the approved rated capacity and calendar plans of production from the approved Mining Plan. Geological maps and sections should be included. The Progressive mine development and Conceptual Final Mine Closure Plan should also be shown in figures. Details of mine plan and mine closure plan approval of Competent Authority should be furnished for green field and expansion projects.

- (x) Details of mining methods, technology, equipment to be used, etc., rationale for selection of specified technology and equipment proposed to be used vis-à-vis the potential impacts should be provided.
- (xi) Impact of mining on hydrology, modification of natural drainage, diversion and channeling of the existing rivers/water courses flowing through the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon.
- (xii) One-season (other than monsoon) primary baseline data on environmental quality - air (PM₁₀, PM_{2.5}, SO_x, NO_x and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil - along with one-season met data coinciding with the same season for AAQ collection period should be provided.
- (xiii) Map (1: 50, 000 scale) of the study area (core and buffer zone) showing the location of various sampling stations superimposed with location of habitats, other industries/mines, polluting sources, should be provided. The number and location of the sampling stations in both core and buffer zones should be selected on the basis of size of lease/project area, the proposed impacts in the downwind (air)/downstream (surface water)/groundwater regime (based on flow). One station should be in the upwind/upstream/non-impact/non-polluting area as a control station. The monitoring should be as per CPCB guidelines and parameters for water testing for both ground water and surface water as per ISI standards and CPCB classification wherever applicable. Observed values should be provided along with the specified standards.
- (xiv) Impact of mining and water abstraction from the mine on the hydrogeology and groundwater regime within the core zone and 10 km buffer zone including long-term monitoring measures should be provided. Details of rainwater harvesting and measures for recharge of groundwater should be reflected in case there is a declining trend of groundwater availability and/or if the area falls within dark/grey zone.
- (xv) Study on subsidence including modeling for prediction, mitigation/prevention of subsidence, continuous monitoring measures, and safety issues should be carried out.
- (xvi) Detailed water balance should be provided. The 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.

- (xvii) Impact of choice of mining method, technology, selected use of machinery and impact on air quality, mineral transportation, coal handling & storage/stockyard, etc, Impact of blasting, noise and vibrations should be provided.
- (xviii) Impacts of mineral transportation within the mining area and outside the lease/project along with flow-chart indicating the specific areas generating fugitive emissions should be provided. Impacts of transportation, handling, transfer of mineral and waste on air quality, generation of effluents from workshop etc, management plan for maintenance of HEMM and other machinery/equipment should be given. Details of various facilities such as rest areas and canteen for workers and effluents/pollution load emanating from these activities should also be provided.
- (xix) Effort be made to reduce/eliminate road transport of coal inside and outside mine and for mechanized loading of coal through CHP/ Silo into wagons and trucks/tippers.
- (xx) Details of various facilities to be provided to the workers in terms of parking, rest areas and canteen, and effluents/pollution load resulting from these activities should also be given.
- (xxi) The number and efficiency of mobile/static water sprinkling system along the main mineral transportation road inside the mine, approach roads to the mine/stockyard/siding, and also the frequency of their use in impacting air quality should be provided.
- (xxii) Impacts of CHP, if any on air and water quality should be given. A flow chart showing water balance along with the details of zero discharge should be provided.
- (xxiii) Conceptual Final Mine Closure Plan and post mining land use and restoration of land/habitat to the pre- mining status should be provided. A Plan for the ecological restoration of the mined out area and post mining land use should be prepared with detailed cost provisions. Impact and management of wastes and issues of re-handling (wherever applicable) and backfilling and progressive mine closure and reclamation should be furnished.
- (xxiv) Greenbelt development should be undertaken particularly around the transport route and CHP. Baseline data on the health of the population in the impact zone and measures for occupational health and safety of the personnel and manpower for the mine should be submitted.
- (xxv) Cost of EMP (capital and recurring) should be included in the project cost and for progressive and final mine closure plan.
- (xxvi) Details of R&R. Detailed project specific R&R Plan with data on the existing socio-economic status of the population (including tribals, SC/ST, BPL families) found in the study area and broad plan for resettlement of the displaced population, site for the resettlement colony, alternate livelihood concerns/employment for the displaced people, civic and housing amenities being offered, etc and costs along with the schedule of the implementation of the R&R Plan should be given.

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

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

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

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 anML/project area of ha for OC and MTPA for UG in an ML/project area of ha based on the generic structure specified in Appendix III of the EIA Notification 2006.

 - (ii)An EIA-EMP Report would be prepared for MTPA rated capacity to cover the impacts and environment management plan for the project specific activities on the environment of the region, and the environmental quality encompassing air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts including prediction modeling for MTPA of coal production based on approved project/Mining Plan for MTPA. Baseline data collection can be for any season (three months) except monsoon.

 - (iii) The ToRs prescribed for both opencast and underground mining are applicable for opencast – cum underground mining.
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LIST OF PARTICIPANTS OF EAC (COAL) IN 39th MEETING HELD DURING 12-13 JANUARY, 2023 THROUGH VIDEO CONFERENCING

1.	Shri G.P Kundargi			2- DAYS
		-	Chairman	P
2.	Dr. N. P. Shukla	-	Member	P
3.	Shri Suramya Dolarray Vora, IFS (Retd)	-	Member	P
4.	Dr. Umesh Jagannathrao Kahalekar	-	Member	P
5.	Shri K.B. Biswas	-	Member	P
6.	Dr. Nandini.N	-	Member	A
7.	Dr. Unmesh Patnaik	-	Member	A
8.	Professor S S Rai, Representative of IIT/ISM Dhanbad	-	Member	P
9.	Shri M.P Singh, Representative of CEA	-	Member	P
10.	Dr. Santosh Kumar Hampannavar	-	Member	P
11.	Prof R.K. Giri Representative of IMD	-	Member	A
12.	Dr. Nazimuddin Representative of Central Pollution Control Board	-	Member	P
13.	Shri Lalit Bokolia, Director, MoEFCC	-	Member Secretary	P

