IN THE HON'BLE NATIONAL GREEN TRIBUNAL,
EASTERN ZONE BENCH, KOLKATA

APPEAL NO. 06 OF 2020

IN THE MATTER OF:

Sanjay Chauhan ...Appellant

Versus

Union of India & Ors. ...Respondents

REPLY AFFIDAVIT ON BEHALF OF RESPONDENT NO. 1, UNION OF INDIA [MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

I, Rajeev Ranjan, aged about 41years, working as Scientist 'E' in the Ministry of Environment, Forest and Climate Change (MoEF&CC) at Integrated Regional Office at Ranchi, Government of India, Bungalow No. A-2, Shyamli Colony, P.O. & P.S. Doranda, Ranchi – 834002, Jharkhand, do hereby solemnly affirm and declare as under:-

MOST RESPECTIFULLY SHOWETH:

1. That I am working as Scientist 'E' in the Ministry of Environment, Forest & Climate Change, Government of India and as such I am conversant with the facts and circumstances of the case and I have been authorized to file the affidavit on behalf Union of India Respondent No. 1 herein.

2. That I have read and understood the content of Appeal under reply and I deny each and every averment made therein except those which are admitted

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क्षेत्रीय कार्यालय, राँची / Regional Office, Ranchi

expressly by the deponent. The averment which are not denied may be deemed to have been denied by the deponent.

3. It is submitted that the present Appeal has been filed against the grant of Environmental Clearance (EC) dated 20/03/2020, which was issued by Ministry of Environment, Forest and Climate Change vide letter No. J-11015/109/2003-IA. II(M) for expansion of Amrapali Open Cast coal mine from 12 MTPA to 14.4 MTPA by M/s Central Coalfields Limited in mine lease area of 619.87 ha located at Chatra District of Jharkhand.

4. It is submitted that the Appellant has raised the following contentions:

   i. Public Hearing has been illegally exempted by relying upon the Office Memorandum dated 15.09.2017.

   ii. An Office Memorandum cannot circumvent and override the provisions of the EIA Notification, 2006.

   iii. Earlier Public Hearing was conducted as per the EIA Notification, 1994, and its minutes have not been considered by the Expert Appraisal Committee (EAC) while recommending the Project.

   iv. The second component of the Public Consultation process has also not been complied

   v. The Project does not meet the requirements of the OM dated 15.09.2017

   vi. No Cumulative Impact Assessment has been carried out

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vii. Road transportation of coal is one of the primary causes in the increase of ground level concentrations of air pollutants in the ambient air surrounding coal mines

viii. Violation of the Conditions of the Previous EC dated 03.01.2006

ix. Inadequate Appraisal by the EAC

5. It is respectfully denied that the Office Memorandum dated 15th September, 2017 issued by Ministry does not, in anyway, circumvents or overrides the provisions of EIA Notification 2006. It is submitted that Ministry's OM dated 15th September, 2017 is completely in line with Para 7(ii) of Environment Impact Assessment Notification (EIA), 2006 and amendments therein for expansion in existing projects and there is no new provision introduced through the above said OM. The para 7(ii) of EIA Notification, 2006 is reproduced below:

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"(a) All applications seeking prior environmental clearance for expansion with increase in the production capacity beyond the capacity for which prior environmental clearance has been granted under this notification or with increase in either lease area or production capacity in the case of mining projects or for the modernisation of an existing unit with increase in the total production capacity beyond the threshold limit prescribed in the Schedule to this notification through change in process and or technology or involving a change in the product –mix shall be made in Form I and they shall be considered by the concerned Expert Appraisal Committee or State Level Expert Appraisal Committee within sixty days, who will decide on the due diligence necessary including preparation of Environment Impact Assessment

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and public consultations and the application shall be appraised accordingly for grant of environmental clearance in respect of projects or activities other than falling in clause (b) and (c)."

6. That it is submitted that Ministry has issued the said OM in line with the above-said provision, which has been issued after due recommendation of sectoral Expert Appraisal Committee. As per OM dated 15th September 2017, the committee has recommended for exemption from public hearing while considering grant of environmental clearance to the expansion projects of coal mines, involving increase in production capacity up to 40% in 2-3 phases after the due diligence and subject to fulfilment of certain requirements as under: -

i. Predicted air quality parameters are within the prescribed norms.
ii. Coal transportation is through conveyor system up to the silo and then loading to railway wagons, involving no transportation through roads.
iii. Coal mining is done through deployment of surface miners, replacing three dust generating operations of the conventional mining system namely drilling, blasting and crushing in one go.
iv. Public hearing already conducted for the total mine lease area involved and no more area is required for the proposed expansion.
v. Compliance status of EC conditions monitored by the concerned Regional Office of this Ministry is found to be satisfactory.
vi. Other statutory requirements like Consent to Establish/Operate, Clearance from CGWA, approval of Mining Plan and the Mine Closure Plan, Mine Closure Status Report as applicable, Forest Clearance, etc are satisfactorily fulfilled.

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Copy of Ministry's OM dated 15/09/2017 is annexed herewith and marked as **Annexure R/1.**

Based on this ground itself, this petition is liable to be dismissed at this stage itself.

7. It is further submitted that previously, the EC to the Amrapali Open Cast Mine project was granted under EIA Notification, 1994 vide Ministry's letter No J-11015/109/2003-IA. II(M) on 03.01.2006 for 12 MTPA capacity in mine lease area of 1426.08 Ha. Copy of the EC Letter dated 03.01.2006 is annexed herewith and marked as **Annexure R/2**.

8. It is submitted that in response to the judgment dated 07.02.2018 of the Hon'ble Supreme Court in Special Leave to Appeal (Civil) No. 32138 of 2015 in the matter of Goa Foundation V/s M/s Sesa Sterlite Ltd. & Ors. the Ministry had issued a Notification dated 06.04.2018 wherein it is stated that "The mining projects which were granted EC under EIA notification 1994 and but not obtained EC for expansion/ modernization/ amendment under the EIA notification 2006 shall make an application in Form I within six months from the date of issue of this notification for grant of EC under the provisions of the EIA notification, 2006". In pursuance to the above mentioned Notification, the project proponent had submitted the proposal for revalidation of Environmental Clearance dated 03.01.2006 granted by the Ministry in favour of M/s Central Coalfields Ltd. for Amrapali Opencast Coal Mining Project of 12 MTPA in the mine lease area of 1426.08 ha located in villages Khumarangkhurd, Khumarangkalan, Ursu, Binglat, Honhe, Tehsil Pachra Block, District Chatra (Jharkhand).

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Copy of the Notification dated 06.04.2018 is annexed herewith and marked as **Annexure R/3**.

9. It is submitted that as per Ministry's Notification dated **06.04.2018**, the Expert Appraisal Committee shall decide on the due diligence whether preparation of Environmental Impact Assessment Report and Public Consultation for the project is required or not.

10. It is submitted that the proposal for revalidation of EC was at first instance deferred by the Expert Appraisal Committee (EAC) of the Ministry for Thermal & Coal Mining Sector in its 34th Meeting held on 24/07/2018 based on the following observations: -

    i. Public notice to be issued in leading newspapers for information of the stakeholders about commencement of the project and present coal mining operations of capacity 12 MTPA in mine lease area of 1426.08 ha, inviting comments and their redressal.

    ii. Mining Plan and the Mine Closure Plan duly approved by the competent authority.

    iii. Forest clearance for diversion of the forest land of 226.51 ha for non-forestry purposes.

    iv. Compliance status of the conditions stipulated in the environmental clearance dated 08/02/2006 from the Regional Office at Ranchi.

    v. Consent to operate from the State Pollution Control Board for the present mining operations.

    vi. Redressal of issues raised during the last public hearing conducted by the SPCB on 8th October, 2004, along with the R&R details duly certified by the State Government.

    vii. Details of court cases and the compliance status.

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11. It is submitted that thereafter, the proposal was considered by the EAC in the Ministry for Thermal & Coal Mining Sector in its 44th Meeting held on 24-25th April, 2019 wherein the project proponent provided all the information as sought by the Committee. As regards Public Notice, the Project Proponent had issued the public notice on 07/08/2018 in leading newspapers for information of the stakeholders about commencement of Amrapali OCP. However, no comment was reported to be received against the public notice. In terms of redressal of issues raised during the public hearing conducted by SPCB on 02/04/2003, a concise report of action taken by project proponent to redress the issues raised during that public hearing was submitted. It is further submitted that the EAC after detailed deliberations has recommended the project for grant of revalidation of EC based on Ministry's Notification dated 06th April, 2018. Copy of the 44th Minutes of Meeting held on 24-25th April, 2019 is annexed herewith and marked as **Annexure R/4**.

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12. Further, the Ministry, after examination of the recommendation of the EAC observed that EC was granted for an area of 1426.08 ha however, during revalidation, the Project Proponent has reduced the area from 1426.08 to 619.87 ha and accordingly project was asked to revise the mine plan with the capacity remaining the same.

13. It is submitted that the EAC, in its 52nd Meeting held on 24.01.2020, recommended the proposal of M/s Central Coalfields Ltd., for reduction of Mine Lease Area from 1426.08 ha to 619.87 ha, since Forest Clearance was not available for the total land and revalidation of EC dated 03.01.2006 as per

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Ministry's Notification dated 06.04.2018. Finally, the Ministry, based on the recommendation of EAC granted revalidation of EC along with amendments in EC based on Ministry's Notification dated 06.04.2018 to M/s Central Coalfields Limited for Amrapali Coal Mining Project for 12 MTPA capacity in an area of 619.87 ha vide its revalidation letter dated 28/02/2020.Copy of the 52nd Meeting held on 24.01.2020 is annexed herewith and marked as **Annexure R/5**. Copy of Revalidation Letter 28/02/2020 is annexed as **Annexure-R/6**.

14. Subsequently, M/s Central Coalfields Ltd. has applied for expansion of project and seeking Environmental Clearance from 12 MTPA to 16.8 MTPA, which is under question, for Amrapali Opencast Coal Mine in a mine lease area of 619.87 ha based on Ministry's OM dated 15th September, 2017. The proposal was examined by the EAC in its 53rd Meeting held on 20/02/2020. The Committee took cognizance of certified compliance report and also the issues raised in public consultation held on 02.05.2003 by the project proponent. It is to mention that EAC has taken the cognizance of the issues raised in public hearing held during considering the project of 12 MTPA, including the issues deliberated during revalidation of this EC. After detailed deliberation, EAC observed that the Project Proponent must focus on compliance of EC conditions and recommended the proposal for grant of environmental clearance to Amrapali Opencast Coal Mine from 12 MTPA to 14.4 MTPA (Peak), which is 20% expansion in place of request of 40% made by M/s CIL.

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The committee finally recommended the proposal with 20% enhancement of capacity as against the demand of 40% enhancement with adequate environmental safeguards on the non-compliances of previous EC. In this

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project, EAC also recommended that the MoC may direct CIL subsidiaries to comply the EC/FC/CTO conditions strictly within certain time bound manner so that the mining operations will be environmentally sustainable/viable etc. Also, EAC prescribed for ensuring Compliance to the non-compliance/partial compliance conditions certified by Regional Office, Ranchi vide its Letter dated 4th December, 2019 and complete them in one year with Action Taken Report to be submitted to the Regional Office of MoEF&CC.

Copy of Minutes of Meeting dated 20/02/2020 is annexed herewith and marked as **Annexure R/7**.

15. It is also submitted that the sectoral Expert Appraisal Committee after detailed deliberations and as per the Ministry's OM dated 15th September, 2017, exempted the project from fresh public hearing and recommended for grant of Environment Clearance with adequate environmental safeguards.

16. It is submitted that based on the recommendations of EAC in its 53rd meeting held on 20.02.2020, the Ministry granted the expansion of EC from 12 to 14.4 MTPA vide its letter dated 20/03/2020 in favour of M/s Central Coalfields Ltd.

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Copy of EC letter dated 20/03/2020 is annexed herewith and marked as **Annexure R/8**.

17. It is submitted that the Ministry while issuing the Environmental Clearance letter dated 20/03/2020, had imposed environmental safeguards by providing the **specific condition No. (iii), (iv), (v) and (vi)** in-order to mitigate air pollution from coal transport. It is further submitted that various other conditions viz. Air quality monitoring, bio-diversity preservation including

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green belt development for minimizing the dust/air pollution has been imposed. It is further supplemented that the PP had submitted Compliance Report wherein it has been stated that the coal is being transported through tarpaulin-covered trucks to nearby Shivpur Railway siding on the Tori-Shivpur line, which is at a distance of 07 km from the project boundary.

18. It is submitted that the Integrated Regional Office, Ranchi vide letter dated 13/01/2021 has submitted the latest compliance report of the project. Copy of the Report dated 13/01/2021 is annexed herewith and marked as **Annexure R/9**.

19. In view of the above mentioned facts, this Hon'ble Tribunal is graciously requested to pass any orders as may deem fit in the interest of justice. The Answering Respondent prays accordingly.

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Deponent
RAJEEV RANJAN

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VERIFICATION

I, the above named deponent, do hereby solemnly affirm and state that the contents of above mentioned are true and correct to the best of my knowledge and based on record and I have not suppressed any material fact.

Verified at Ranchi on 07 OCT 2021 day of October, 2021

ANIL KR. SINGH
NOTARY
Reg.-419/11
Ranchi, Jharkhand, India
NOTARY PUBLIC, RANCHI

Deponent
RAJEEV RANJAN

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Signature attested by
Identification of Lawyer.
07/10/21
E.No. 1465/15

Annexure R/1

F. No.J-11015/224/2015-IA.II
Government of India
Ministry of Environment, Forest and Climate Change
(IA-II Section)

Indira Paryavaran Bhawan,
Jorbagh Road, N Delhi - 3
Dated: 15th September, 2017

Office Memorandum

Sub: Environmental Clearance for expansion of Coal Mining Projects - Exemption from Public hearing - reg.

In order to facilitate grant of Environmental Clearance (EC) to the expansion projects of coal mines, Office Memorandums have been issued by this Ministry from time to time providing exemption from public hearing.

2. Ministry of Coal in order to allow rapid expansion in coal production has made request for further dispensation in public hearing to expedite Environmental Clearances.

3. The request of Ministry of Coal was considered by the Expert Appraisal Committee (EAC) in the Ministry constituted for appraisal of projects relating to Thermal and Coal sectors. The Committee has recommended for exemption from public hearing while considering grant of environmental clearances to the expansion projects of coal mines, involving increase in production capacity up to 40% in 2-3 phases after the due diligence and subject to fulfilment of certain requirements as under:-

(i) Predicted air quality parameters are within the prescribed norms.
(ii) Coal transportation is through conveyor system up to the silo and then loading to railway wagons, involving no transportation through roads.
(iii) Coal mining is done through deployment of surface miners, replacing three dust generating operations of the conventional mining system namely drilling, blasting and crushing in one go.
(iv) Public hearing already conducted for the total mine lease area involved and no more area is required for the proposed expansion.
(v) Compliance status of EC conditions monitored by the concerned Regional Office of this Ministry is found to be satisfactory.
(vi) Other statutory requirements like Consent to Establish/Operate, Clearance from CGWA, approval of Mining Plan and the Mine Closure Plan, Mine Closure Status Report as applicable, Forest Clearance, etc are satisfactorily fulfilled.

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4. In view of the aforesaid recommendations by EAC, the Ministry has decided to consider the proposals for grant of EC to the expansion of coal mining projects providing exemption from public hearing, in the manner and/or subject to the conditions as under:-

(a) The proposed expansion can go up to a maximum of 40% of capacity, wherein the last public hearing was conducted.
(b) There is no increase in area for the proposed expansion vis-a-vis the area in EC, wherein last public hearing was conducted.
(c) Coal transport is through conveyor system up to the silo and loading to railway wagons, and not by road.
(d) The EAC shall carry out the due diligence on all the parameters mentioned in para 3 above, and make its recommendations accordingly.
(e) EAC may consider the need for a third party study through an expert agency in a time bound manner, after grant of EC.

5. This OM shall be in supersession of the earlier OMs issued by the Ministry as under:

(i) OM No. J-11015/30/2004-IA.II (M) dated 19th December, 2012
(ii) OM No. J-11015/30/2004-IA.II (M) dated 7th January, 2014
(iii) OM No. J-11015/30/2004-IA.II (M) dated 30th May, 2014
(iv) OM No. J-11015/30/2004-IA.II (M) dated 28th July, 2014
(v) OM No. J-11015/30/2004-IA.II (M) dated 2nd September, 2014

6. This issues with approval of the competent authority.

15/9/2017
(S.K.Srivastava)
Scientist E

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Annexure R/2

No. J -11015/109/2003-IA.II (M)
Government of India
Ministry of Environment and Forests

Paryavaran Bhavan
C.G.O.Complex,
Lodi Road, New Delhi-110 003

Date the 3rd January 2006

To,

Shir N.C. Verma
General Manager (Envt. & Forest.)
M/s Central Coalfields Limited,
Darbhanga House,
Ranchi-834 001
Jharkhand

Subject: Amrapali opencast coal mining project of M/s Centeral Coalfields Ltd. located in part of village Khumarang Khurd, Khumarang Kalan, Ursu, Binglat, Honhe, Tehsil Pachra Block on the east and Koed block on the west, District Chatra, Jharkhand - environmental clearance reg.

Sir,

This has reference Ministry of Coal letter No. 43011/13/2002-CPAM dated 13.06.2002 and your letter No. GM(Env.&Forest)2003/789 dated 17.06.2003 and subsequent letters dated 08.03.2005, 22.08.2005, 22.09.2005 and 19.11.2005 on the subject mentioned above. It has been noted that the proposal is for opening of a new mine and accorded site clearance by the Ministry on 20.08.2004. Total mining lease area of the project is 1426.08 ha, out of which 793.08 ha is forestland, 157 ha is wasteland, 51 ha is surface water bodies and 425 ha is others (settlements etc.). An area of 46.70 ha for township has also been included in the lease area. Area proposed for mining is 861.36 ha, 89.16 ha area is kept for OB dumps, 14.56 ha for infrastructure, 42.25 ha for roads, 179 ha for railway siding, 20.33 ha for CHP, 46.70 ha for township and 172.2 ha is for others (nallah diversion embankment of garland drain, safety zone etc.). No ecologically sensitive area such national park/sanctuary/biosphere reserve etc. reported within 10 km radius of the project. Working will be open cast by mechanised method using dragline and shovel-dumper combination involving controlled blasting. Ultimate working depth of the mine is 135 m bgl. The envisaged rated capacity of the mine is 12 MTY. Approximately 544 households comprising a population of 3228 people from 5 villages are in the core zone. Displacement of population and R&R is involved. Water table is in the range of 3-12 m bgl (pre monsoon) and 33-6.0 m bgl (post monsoon). Working will intersect ground water table and 3000 m^3/day is the likely discharge from the mine during the lean period and 4000 m^3/day during the monsoon period. Peak water requirement of the project is 3143 m^3/day out of which 950 m^3/day will be met from ground water and remaining 2193 m^3/day from mine sump water. A total of 459.68 million m^3 of OB will be generated throughout the mine life, of which 418.630 million m^3 would be placed as internal dump and remaining 41.10 mm^3 as an external dump in an area of 82 ha. Backfilling will start after 10th year. NOC from the State Pollution Control Board obtained on 09.06.2003 for production capacity of 12 MTPA involving lease area of 1426.08 ha. Public hearing held on 02.04.2003. Project report approved by CIL Board on 27.12.2002. Capital cost of the project is Rs.131125 lakhs. ..2/-

2. The Ministry of Environment & Forests hereby accords environmental clearance to the above mentioned coal mining project of M/s Central Coalfields Ltd. for annual production capacity of 12 million tones of coal involving total mining lease area of 1426.08 ha under the provisions of the EIA Notification1994 and its subsequent amendments issued under Environment (Protection) Act, 1986 subject to implementation of the following conditions/safeguards.

B. Specific Conditions

(i) The environmental clearance is subject to grant of forestry clearance for diversion of 793.08 ha forestland.

(ii) Top soil should be stacked with proper slope at earmarked site(s) only with adequate measures and should be used for reclamation and rehabilitation of mined out areas.

(iii) OB dumps should be stacked at earmarked dump site(s) only and should not be kept active for long period. Proper terracing of OB dump should be carried out so that the overall slope shall not exceed 28 degree. Backfilling should start from 10th years onwards. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests on six monthly basis.

(iv) Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted and maintained properly.

Garland drain (size, gradient and length) and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material.

(v) Dimension of the retaining wall at the toe of dumps and OB benches within the mine to check run-off and siltation should be based on the rainfall data.

(vi) Green belt should be raised in area of 526 ha by planting the native species around the ML area, OB dumps, coal handling plant, roads etc. in consultation with the local DFO / Agriculture Department. The density of the trees should be around 2500 plants per ha.

3/-

(vii) The project authorities should meet the water requirement of nearby village(s) in case the village wells go dry due to de-watering of the mine.

(viii) Suitable embankment of proper dimensions should be constructed to protect the area from flood water of river Barki during rainy season.

(ix) The project authority should implement suitable water conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.

(x) Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring should be carried out four times in a year – pre-monsoon '(April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regularly to MOEF, Central Ground Water Authority and Regional Director Central Ground Water Board.

(xi) Permission from the competent authority should be obtained for drawal of ground water for domestic use.

(xii) Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with Regional Director, CGWB.

(xiii) Appropriate mitigative measures should be taken to prevent pollution of Barki river in consultation with the State Pollution Control Board.

(xiv) Coal handling plant should be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.

(xv) Sewage treatment plant should be installed for the colony. ETP should also be provided for wastewater from workshop and CHP.

(xvi) Consent to operate should be obtained from SPCB before starting production from the mine.

(xvii) The project authorities should undertake sample survey to generate data on pre-project community health status within a radius of 1 km from proposed mine

(xviii) Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land use pattern and report submitted to MOEF and its Regional Office.

(xix) Vehicular emissions should be kept under control and regularly monitored. Overloading of trucks be avoided to stop spillage. The loaded trucks be covered with tarpaulin sheets to prevent spillage of coal.

...4/-

(xx) Land oustees and land loosers should be compensated as per the State Government norms and CIL Policy.

(xxi) Blasting operation should be carried out only during the daytime. Controlled blasting should be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented

(xxii) The project proponent should take all precautionary measures during mining operation for conservation and protection of endangered fauna such as python, baaz, eagle, peacock reported in the study area in consultation with the concerned forest officials. Action plan for conservation of endangered fauna should be prepared and submitted to the Ministry and its Regional Office within 3 months.

(xxiii) A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.

B. General conditions

(i) No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forests.

(ii) No change in the calendar plan including excavation, quantum of mineral coal and waste should be made.

(iii) Conservation measures for protection of flora and fauna in the core & buffer zone should be drawn up in consultation with the local forest department and experts.

(iv) Four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RPM, SPM, SO_2, NOx & CO monitoring. Location of the stations should be decided based on the meteorological data, topographical features, and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board.

Data on ambient air quality (RPM, SPM, SO_2, NOx & CO) should be regularly submitted to the Ministry including its Regional office at Bhubaneshwar and the State Pollution Control Board / Central Pollution Control Board once in six months.

(v) Fugitive dust emissions from all the sources should be controlled regularly monitored and data recorded properly. Water spraying arrangement on haul roads, loading & unloading points should be provided and properly maintained.

(vi) Drills should either be operated with dust extractors or should be equipped with water injection system.

5/-

(vii) Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operation of HEMM, etc should be provided with ear plugs/muffs.

(viii) Measures for safety should be provided for storage, handling and use of explosives during the project period.

(ix) Acid mine water, if any, has to be treated and disposed of after conforming to the standard prescribed by the competent authority

(x) Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents.

(xi) Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.

Occupational health surveillance programme of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.

(xii) A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.

(xiii) The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office located at Bhubaneshwar.

(xiv) The Regional Office of this Ministry located at Bhubaneshwar shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.

(xv) A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom and suggestion / representation has been received while processing the proposal.

(xvi) State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and Collector's office/ Tehsildar's Office for 30 days.

....6/-

(xvii) The project authorities should advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and may also be seen at web site of the Ministry of Environment and Forests at **http://envfor.nic.in** and a copy of the same should be forwarded to the Regional Office of this Ministry located at Bhubaneshwar.

3. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.

4. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

5. The above conditions will 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 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

(SATISH C. GARKOTI)
Additional Director (S)

Copy to:

1. Secretary, Ministry of Coal, Government of India, Shastri Bhawan, New Delhi.

2. Secretary, Department of Mines & Geology, Government of Jharkhand, Secretariat, Ranchi.

3. Secretary, Department of Environment, Government of Jharkhand, Secretariat, Ranchi.

4. Chief Conservator of Forests(Central), Ministry of Environment & Forests, Regional Office(EZ), A/3, Chandra Shekhar Bhubaneshwar - 751 003.

5. Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office complex, East Arjun Nagar, New Delhi-1100032.

6. Member Secretary, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001.

7. Chairman, Jharkhand State Pollution Control Board, T.A. Building, HEC Complex, P.O. Dhurwa, District Ranchi, Jharkhand.

7/-

8. Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440 001.

9. District Collector, Chatra District, Jharkhand.

10. Shri M.K.Shukla, Chief General Manager, Coal India Limited, Core-I, 4th Floor, SCOPE Minar, Vikas Marg, New Delhi-110092.

11. EI Division, Ministry of Environment and Forests, Paryavaran Bhavan , C. G. O. Complex, Lodi Road, New Delhi-110 003 .

12. Monitoring File.

13. Guard File.

14. Record File.

रजिस्ट्री सं० डी० एल०-33004/99

REGD. NO. D. L.-33004/99

भारत का राजपत्र
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अधिसूचना

नई दिल्ली, 6 अप्रैल, 2018

का.आ. 1530(अ).—माननीय उच्चतम न्यायालय ने कामन कॉज बनाम भारत संघ और अन्य के मामले में रिट याचिका (सिविल) सं. 2014 का 114, तारीख 2 अगस्त, 2017 के निर्णय द्वारा अन्य बातों के साथ यह निर्देश दिया है कि भारत सरकार के तत्कालीन पर्यावरण और वन मंत्रालय की अधिसूचना सं. का.आ. 60(अ) तारीख 27 जनवरी, 1994 (जिसे इसमें इसके पश्चात् ईआईए अधिसूचना, 1994 कहा गया है) के अधीन खनन परियोजनाओं को प्रदान किए गए पर्यावरण निर्बाधन की विधिमान्यता पांच वर्ष के लिए होगी और ईआईए अधिसूचना, 1994 के अधीन विस्तार पर विचार करने के लिए 1993-94 या उसके तुरंत पूर्व का वार्षिक उत्पादन आधार वर्ष होगा ;

और माननीय उच्चतम न्यायालय ने गोवा फाउंडेशन बनाम मैसर्स सीसा स्टेरलाइट लिमिटेड और अन्य के मामले में विशेष अनुमति याचिका (सिविल) सं. 2015 का 32138 तारीख 7 फरवरी, 2018 में दिए गए निर्णय द्वारा यह दोहराया है कि ईआईए अधिसूचना, 1994 के अधीन खनन परियोजनाओं के लिए प्रदान किए गए पर्यावरण निर्बाधन की विधिमान्यता पांच वर्ष होगी ;

और माननीय उच्चतम न्यायालय ने तारीख 7 फरवरी, 2018 के अपने उपरोक्त निर्णय में यह कहा है कि भारत सरकार के तत्कालीन पर्यावरण और वन मंत्रालय की अधिसूचना सं. का.आ. 1533(अ), तारीख 14 सितंबर, 2006 (जिसे इसमें इसके पश्चात् ईआईए अधिसूचना, 2006 कहा गया है) का पैरा 9 यह उपबंधित करता है कि पर्यावरण निर्बाधन 30 वर्षों की अधिकतम अवधि के अध्यधीन रहते हुए प्राक्कलित परियोजना जीवन के लिए विधिमान्य होगी ;

और उपरोक्त को ध्यान में रखते हुए, ईआईए अधिसूचना, 1994 के अधीन खनन परियोजनाओं से संबंधित मामलों की दो श्रेणियां होंगी, अर्थात् :--

(क) खनन परियोजनाएं, जिन्हें ईआईए अधिसूचना, 1994 के अधीन पर्यावरण निर्बाधन प्रदान किया गया था और ईआईए अधिसूचना, 2006 के अधीन विस्तार करने या आधुनिकीकरण या संशोधन करने के लिए भी पर्यावरण निर्बाधन प्रदान किया गया था ; और

(ख) खनन परियोजनाएं, जिन्हें ईआईए अधिसूचना, 1994 के अधीन पर्यावरण निर्बाधन प्रदान किया गया था और परंतु ईआईए अधिसूचना, 2006 के अधीन विस्तार करने या आधुनिकीकरण या संशोधन करने के लिए भी पर्यावरण निर्बाधन प्राप्त नहीं किया गया था ।

और उपरोक्त तीसरे पैरा के अनुसार, उपरोक्त चौथे पैरा के खंड (क) में उल्लिखित परियोजनाएं पांच वर्ष के होते हुए पर्यावरण निर्बाधन की विधिमान्यता के शिथिलीकरण से ग्रस्त नहीं होगी ;

और उपरोक्त चौथे पैरा के खंड (क) में उल्लिखित परियोजनाएं आधार उत्पादन के मुकाबले विस्तार के शैथिलीय से ग्रसित नहीं होगी क्योंकि इन परियोजनाओं को ईआईए अधिसूचना, 2006 के अधीन पहले से ही अंकित किया गया था और पर्यावरण निर्बाधन प्रदान किया गया था ;

और उपरोक्त चौथे पैरा के खंड (ख) में उल्लिखित सभी खनन परियोजनाओं से माननीय उच्चतम न्यायालय के उपरोक्त निर्णय के अनुसरण में ईआईए अधिसूचना, 2006 के अधीन पर्यावरण निर्बाधन प्राप्त करना अपेक्षित है ;

और पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय माननीय उच्चतम न्यायालय के उपरोक्त निर्णय के कार्यान्वयन के लिए साथ ही साथ पर्यावरण की सुरक्षा और उसकी गुणवता में सुधार के लिए तथा पर्यावरण प्रदूषण को समाप्त करने के लिए यह आवश्यक समझता है कि उपरोक्त चौथे पैरा के खंड (ख) में उल्लिखित सभी परियोजनाओं को ईआईए अधिसूचना, 2006 के विनियामक ढांचे के अधीन लाया जाए,

अत: अब केंद्रीय सरकार पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के उपनियम (4) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 3 की उपधारा (1) और उपधारा (2) के खंड (v) के द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, लोक हित में उक्त नियमों के नियम 5 के उपनियम (3) के खंड (क) के अधीन सूचना की अपेक्षा को छोड़ने के पश्चात् उच्चतम न्यायालय के उपरोक्त निर्णयों के कार्यान्वयन के लिए यह निदेश देती है कि पर्यावरण निर्बाधन की विधिमान्यता और आधार उत्पादन के मुकाबले परियोजनाओं के विस्तार को अंतर्वलित करने वाले ऐसे मामलों में परियोजना प्रस्तावक ईआईए अधिसूचना, 2006 के उपबंधों के अधीन पर्यावरण निर्बाधन प्रदान करने के लिए, ईआईए अधिसूचना, 2006 के परिशिष्ट-2 में दिए गए प्ररूप 1 में इस अधिसूचना के जारी किए जाने की तारीख से छह मास के भीतर आवेदन करेगा, और ऐसे सभी आवेदनों पर, यथास्थिति, संबद्ध विशेषज्ञ मूल्यांकन समिति या राज्य स्तरीय विशेषज्ञ मूल्यांकन समिति द्वारा विचार किया जाएगा, जो आवश्यक सम्यक् तत्परता पर, जिसके अंतर्गत पर्यावरण समाघात निर्धारण रिपोर्ट को तैयार करना और लोक परामर्श भी है, पर विनिश्चय करेंगे और आवेदन तदनुसार पर्यावरण निर्बाधन प्रदान करने के लिए अंकित किया जाएगा ।

[फा.सं. एल-11011/69/2014-आईए. II (एम]

ज्ञानेश भारती, संयुक्त सचिव

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 6th April, 2018

S. O. 1530(E).—Whereas, the Hon'ble Supreme Court, vide judgment 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., *inter-alia,* has directed that the validity of the environmental clearance granted for mining projects under the notification number S.O. 60(E), dated the 27th January, 1994 (hereinafter referred to as the EIA Notification, 1994) of the Government of India in the erstwhile Ministry of Environment and Forests shall be five years, and for considering expansion under the EIA Notification, 1994, the annual production of 1993-94 or immediately preceding year shall be the base year;

And whereas, the Hon'ble Supreme Court vide judgment dated the 7th February, 2018 in Special Leave to Appeal (Civil) No. 32138 of 2015 in the matter of Goa Foundation versus M/s Sesa Sterlite Ltd., & Ors. has reiterated that the validity of the environmental clearance for mining projects granted under the EIA Notification, 1994 shall be five years;

And whereas, the Hon'ble Supreme Court in its aforesaid judgment dated the 7th February, 2018 has held that para 9 of the notification number S.O. 1533 (E), dated the 14th September, 2006 of the Government of India in the erstwhile Ministry of Environment and Forests (hereinafter referred to as the EIA Notification, 2006), provides that the environmental clearance would be valid for the estimated project life subject to a maximum of 30 years;

And whereas, in the view of the above, there would be two categories of cases related to mining projects under EIA Notification, 1994, namely: -

(a) mining projects, which were granted environmental clearance under the EIA Notification, 1994, and also granted environmental clearance for expansion / modernisation / amendment under the EIA Notification, 2006; and

(b) mining projects, which were granted environmental clearance under the EIA Notification, 1994, and but not obtained environmental clearance for expansion / modernisation / amendment under the EIA Notification, 2006.

And whereas, as per third paragraph above, the projects mentioned in clause (a) of fourth paragraph above do not suffer from the infirmity of validity of environmental clearance being five years;

And whereas, the projects mentioned in clause (a) of fourth paragraph above, do not suffer from the infirmity of expansion vis-à-vis the base production as these projects were already appraised and granted environmental clearance under the EIA Notification, 2006;

And whereas, all mining projects mentioned in clause (b) of fourth paragraph above are required to obtain environmental clearance under the EIA Notification, 2006, in pursuance of the aforesaid judgments of the Hon'ble Supreme Court;

And whereas, the Ministry of Environment, Forest and Climate Change deems it necessary for implementation of the aforesaid judgments of the Hon'ble Supreme Court as well as for the protecting and improving the quality of environment and abating the environmental pollution, that all projects mentioned in clause (b) of fourth paragraph above, be brought under the regulatory framework of the EIA Notification, 2006;

Now, therefore, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) read with sub-rule (4) of rule 5 of the Environment (Protection) Rules, 1986, the Central Government hereby directs, after having dispensed with the requirement of notice under clause (a) of sub-rule (3) of the rule 5 of the said rules in public interest, for implementation of the aforesaid judgments of the Hon'ble Supreme Court, that the project proponent in all such cases involving validity of the environmental clearance and expansion of mining projects vis-à-vis the base production, shall make application within six months from the date of issue of this notification in Form-1 as given in Appendix-II of the EIA Notification, 2006, for grant of environmental clearance under the provisions of the EIA Notification, 2006, and all such applications shall be considered by the concerned Expert Appraisal Committee or the State Level Expert Appraisal Committee, as the case may be, who shall decide on the due diligence necessary including preparation of Environmental Impact Assessment Report and public consultation and the application shall be appraised accordingly for grant of environmental clearance.

[F.No. L-11011/69/2014-IA.II(M)]

GYANESH BHARTI, Jt. Secy.

RAKESH SUKUL

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Minutes of the 44th meeting of the Expert Appraisal Committee held on 24-25 April, 2019 for appraisal of coal mining projects at Indira Paryavaran Bhawan, Ministry of Environment, Forest and Climate Change, New Delhi-3

The 44th meeting of the Expert Appraisal Committee (EAC) for Coal mining projects was held during 24 and 25th April, 2019 in the Ministry of Environment, Forest & Climate Change at Brahmaputra and Narmada Meeting Hall, Vayu/Jal Wing, Ground Floor, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi to consider the proposals relating to coal mining sector. The following members were present:

1.	Dr. Navin Chandra	-	Chairman
2.	Dr. N. P. Shukla		Member
3.	Dr. Manjari Srivastava		Member
4.	Shri Surmya D Vora		Member
5.	Dr. G.P. Kundargi	-	Member
6.	Shri N.S.Mondal		Member (Representative of CEA)
7.	Dr. R. K. Giri	-	Member (Representative of IMD)
8.	Dr. S. K. Paliwal		Member (Representative of CPCB)
9.	Dr. Jai Krishna Pandey	-	Member
10.	Shri S. K. Srivastava	-	Member Secretary

Confirmation of minutes

There being no comments from any of the members of the Committee, minutes of the 43rd meeting of the EAC held on 21st February, 2019 were confirmed in the presence of the members who had been present in the 43rd meeting.

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

Agenda No.44.1

Kistaram Opencast Project Capacity 2.0 MTPA in a mine lease area of 435.68 ha of M/s The Singareni Collieries Company Limited located near Kistaram Village, Sathupalli Mandal of Khammam District (Telangana) - Environmental Clearance

[IA/CMIN/TG/23509/2014 F.No- J-11015/212/2014-IA-II(M)]

44.1.1 The proposal is for environmental clearance to Kistaram Opencast Coal Mining Project of capacity 2 MTPA in mine lease area of 435.68 ha of M/s Singareni Collieries Company Limited located in village Kistaram, Tehsil Sathupalli, District Khammam (Telangana).

44.1.2 The proposal was earlier considered by the EAC in its meeting held during 30-31 January, 2017, wherein the Committee desired that proposal to be submitted after receipt of Stage-I approval under the Forest (Conservation) Act, 1980 in respect of forest land involved in the project.

After receipt of stage-I forest clearance for diversion of 285.44 ha of forest land vide this Ministry's letter dated 11th September, 2018, the proposal was again considered by EAC in its meeting held during 13-14 December, 2018. During the meeting, the Committee noted that the said forest clearance dated 11th September, 2018 is also subject to the condition as below:-

'*The environmental conditions in and around Sathupalli town may be appraised by the EC Appraisal Committee separately'.*

The proposal was again considered by EAC in its meeting held during 24th January, 2019 and further observed that the report submitted by the project proponent was lacking for the requisite details in respect of impact of mining operations on air and water quality, ground water, stability of residential structures, source of livelihood for the locals of Sathupalli town, their dependency on the forest, flora and fauna, methodology for health survey, etc. Further, the report was found generic in nature and not addressing actual assessment and impact on environmental parameters in and around Sathupalli town.

The Committee also observed that the said report was prepared by Kakatiya University in association with the project proponent themselves, which amounts to conflict of interest and thus not acceptable. The proposal was deferred for the needful on the above lines

44.1.3 During deliberations, the EAC noted the following:

The proposal is for grant of environmental clearance to Kistaram Opencast Coal Mining Project of capacity 2 MTPA in mine lease area of 435.68 ha of M/s Singareni Collieries Company Limited located in village Kistaram, Mandal Sathupalli, District Khammam (Telangana).

Project involves 285.44 ha of forest land. Stage-I forest clearance for diversion of the same for non-forestry use has been obtained vide MoEF&CC letter No.8-55/2014-FC dated 11th September, 2018.

Mining Plan for the project of 2 MTPA in mine lease area of 435.68 ha, including Progressive Mine Closure Plan, was approved by the Ministry of Coal vide their letter dated 21st March, 2014.

Public hearing for the project of 2 MTPA capacity in an area of 435.68 ha was conducted by the State Pollution Control Board on 19th November, 2015. Major issues raised in the public hearing included compensation for project affecter people, mitigation measures for pollution control, employment to land losers, de-siltation of tanks, R&R. The project proponent has proposed an action plan to comply with the commitments made in the public hearing and the same found to be satisfactory.

The in-principle/stage-I approval granted by the Ministry vide letter dated 11th September, 2018 for diversion of 285.44 ha of forest land, is inter-alia subject to the condition 'The environmental conditions in and around Sathupalli town may be appraised by the EC Appraisal Committee separately'. In compliance to the said observations, a report has been submitted by the PP based on the study carried out by Environment Protection Training & Research Institute (EPTRI). The desired details vis-à-vis the observations of the EAC, and the mitigating measures proposed are reproduced as under:-

Pollution mitigation measures pertaining to Sathupalli town

S. No.	Item	Mitigating measures
1	Impact on Air	a) Continuous water/mist spraying arrangements shall be made in the mine to keep the particulate emissions within the limits. b) Effective dust suppression measures shall be taken up at pit head coal handling plant (CHP). The crusher house shall be enclosed to the extent possible and dust suppression arrangement shall be provided.

		c) Massive afforestation shall be carried out around the project area in general and downward wind direction in particular. d) Plantation on overburden dump shall be taken up with native species. e) Avenue plantation shall be taken up on either sides of the roads in the nearby areas. f) Black topping of permanent roads shall be done. g) Wet drilling shall be implemented. h) Water spraying on haul roads shall be done by using water sprinklers. i) Grading of the haul roads with help of motor grader shall be done.
2	Water	a) Garland drains are to be provided all along the periphery of quarry and dump area. The streamlets originating outside the project are to be re-oriented and joined with the original course. b) The mine seepage water shall be pumped out & discharged into settling tanks where the coal fines will be settled and only clear water will be discharged into the water bodies. c) Water from the workshop is to be circulated through oil and grease trap (ETP) before letting out into the local drainage. d) STP shall be constructed for treatment of domestic sewage. e) De-silting of surrounding tanks shall be taken up to increase the capacity of the tanks and augmentation of ground water. f) Check dams shall be constructed at feasible locations in the buffer area for augmentation of ground water recharge. g) Rainwater harvesting structures like percolation tanks shall be constructed. h) Piezometric wells shall be constructed around the proposed project for monitoring of water levels which helps to know the impact of mining on water regime around the project area.
3	Noise & vibration Stability of structures	a) For mitigating the blast vibrations, control blasting technique by using NONELs and limiting the charge per delay shall be implemented as per the DGMS permission. b) Regular maintenance of the machinery shall be carried out to reduce the noise. c) Green belt development around the periphery of the project shall be developed. d) Height of fall of coal shall be minimized at coal transfer points.
4	Socio-economic	a) Special emphasis on providing alternate employment avenues to the local villagers like self-employment schemes, training for unemployed youth, etc. shall be given. b) Trainings shall be given to the unemployed youth for improving self-development skills. c) Trainings shall be given to women for self-empowerment. d) As the project involves R&R, the package has to be implemented as per State Government Guidelines for the PDFs. e) 12 families whose rights are recognized under RoFR Act shall also be rehabilitated in accordance with RFCTLARR Act, 2013. f) The funds allocated under CSR Schemes shall be spent for upliftment of the surrounding villages.
5	Health	a) Regular health checkups and health awareness programmes for people residing in the nearby villages shall be taken up as a

		part of CSR / CER activities. b) Medical camps shall be conducted in Sathupalli Town and surrounding villages as a part of health surveillance. c) Periodical medical examination for all the employees shall be taken up. d) Five lakh trees shall be planted in the vicinity as part of green belt development to curtail pollution.

R&R status of Kistaram OC Project, SCCL

- R&R colony is identified at Cherukupalli Village,Sathupalli Mandal, Khammam District for an extent of Acres 14-05 Guntas.
- Fund provision is made for an amount of Rs.19.525 crores for R&R.
- This colony is about 2.0 km away from the proposed Project Site.
- Revenue Divisional Officer, KalluruDivision, Khammam Districthas been appointed as R&R Officer for conducting the Socio-economic survey.
- The Survey was conducted in the month of February, 2018.
- Development and shifting works will be carried out immediately.
- 12 families whose rights are recognized under Recognition of Forest Rights (RoFR) Act shall also be rehabilitated in accordance with RFCTLARR Act, 2013. In this connection, an undertaking has been submitted to FC Division, MoEF&CC, GoI.

44.1.4 *The EAC, after deliberations, recommended for grant of environmental clearance to the Kistaram Opencast Coal Mining Project of capacity 2 MTPA in mine lease area of 435.68 ha of M/s Singareni Collieries Company Limited located in village Kistaram, Mandal Sathupalli, District Khammam (Telangana), subject to compliance of terms and conditions as applicable, and the additional conditions as under:-*

- *The project proponent shall obtain Consent to establish from the State Pollution Control Boards for the proposed peak capacity of 2 MTPA prior to commencement of the increased production.*
- *Transportation of coal from face to Coal heap shall be carried out by truck. Further, the coal transportation from Coal heap to Coal Handling Plant shall be carried out through covered trucks.*
- *To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers.*
- *Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at railway siding, etc.*
- *The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 2 MTPA.*
- *Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.*
- *Persons of nearby villages shall be given training on livelihood and skill development to make them employable.*
- *To ensure health and welfare of nearby villages, regular medical camps shall be organized at least once in six months.*
- *Thick green belt of adequate width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check the dust pollution.*
- *Efforts shall be made for utilizing alternate sources of surface water, abandoned mines or else whatsoever and thus minimizing the dependability on a single source.*

- *A third party assessment of EC compliance shall be undertaken once in three years through agency like ICFRI/NEERI/IIT or any other expert agency identified by the Ministry.*
- *CSR and CER activity should include action plan for health impacts and its mitigation measures*

Agenda No.44.2

Tara (East) & Tara (West) Coal Mining Project 4 MTPA Capacity in an area of 937.44 ha of M/s West Bengal Power Development Corporation Ltd, located in Village, Churulia, Chinchurbill, Birkulti, District Paschim Bardhaman , (West Bengal) – For Environmental Clearance

[IA/MP/CMIN/76052/2018] F. No. J-11015/22/1996-IA.II (M)

44.2.1 The proposal is for EC for Tara (East) & Tara (West) Coal Mine of 4 MTPA capacity in mine lease area of 937.44 ha of M/s West Bengal Power Development Corporation Limited (WBPDCL) located in village Churulia, Chinchurbill, Deshermohan, Joynagar, Birkulti, Manpur and Joyantipur of Jamuria Block in District Paschim Bardhaman (West Bengal).

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

(i) The project area is covered under Survey of India Topo Sheet No 73 M/1 and is bounded by the geographical coordinates ranging from 23^0 45' 30"N& 23^0 47' 45"N and Longitude 87^0 04' 00"E & 87^0 07' 15"E.

(ii) Coal linkage of the project is proposed for Captive use for M/s WBPDCL Thermal Power Plants located in West Bengal

(iii) No Joint venture cartel has 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: Direct employment to 1161 persons will be provided from the project.

(vi) The project is reported to be beneficial in terms of Environmental, Social, Financial aspects.

(vii) Earlier, the environment clearance to the project was obtained under EIA Notification, 1994 vide Ministry's letter J011016/22/96-IA.II(M) dated 30th January 1997 for 2 MTPA in mine lease area of 361 ha.

(viii) Total mining lease area as per block allotment is 937.44 ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved by the Ministry of Coal on 30.08.2018.

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

Pre-mining land use details (Area in Ha)

Land Use	Within ML Area	Outside ML Area	Total (Ha)
Agricultural Land	262.60	Nil	262.60
Forest Land	0.00	Nil	0.00
Surface Water Bodies	6.10	Nil	6.10
Settlements	62.48	Nil	62.48
Others (Specify):		Nil	
a. Old Excavation Area (East Quarry)	87.02	Nil	87.02
b. Old Excavation Area (West Quarry)	179.02	Nil	179.02
c. Old OB Dumps	96.21	Nil	96.21
d. Roads & Mine Infrastructure	21.27	Nil	21.27
e. R & R Colony	6.0	Nil	6.0

Land Use	Within ML Area	Outside ML Area	Total (Ha)
f. Staff Colony	10.0	Nil	10.0
g. Green Belt	9.96	Nil	9.96
h. Balance Area	196.78	Nil	196.78
Total Project Area	**937.44**	Nil	**937.44**

Post mining Landuse

Sr. No	Land Use During Mining	Post-Mining Land Use (Ha)				
		Plantation	Water Body	Public Use	Undisturbed	Total
1	External OB Dump	96.21	---	---	---	96.21
2	Top Soil Dump	---	---	---	---	---
3	Excavation	350.03	55.03	---	---	405.06
4	Roads	---	---	3.59	---	3.59
5	Built-up Area	---	---	21.27	---	21.27
6	Green Belt	9.96	---	---	---	9.96
7	Undisturbed Area	---	---	---	329.79*	329.79
8	Safety Zone / Rationalization Area	50.58	---	---	---	50.58
9	Diversion / Below River / Nala / Canal	---	6.10	---	---	6.10
10	Water Body	---	4.88	---	---	4.88
11	Staff Colony	---	---	10.00	---	10.00
	Total Area =	**506.78**	**66.01**	**34.86**	**329.79**	**937.44**

(x) Total geological reserve reported in the mine lease area is 209.69 MT with 73.58MT mineable reserve for Opencast Mining. Out of total mineable reserve of 73.58 about 17.71 MT are available for extraction. Percent of extraction is 24 %.

(xi) Eleven seams with thickness ranging from 0.15 to 11.69 m are workable. Grade of coal is G7/G8 stripping ratio 1:10.72 while gradient is 12 to 15.

(xii) Method of mining operations envisages by Opencast method

(xiii) Life of mine is 11 years.

(xiv) The project has proposed no external OB dumps. OB concurrently backfilled from 1st year onwards. Internal OB dump in an area of 350.03 ha with 190.56 Mm^3 of OB is envisaged in the project.

(xv) Total quarry area is 405.06 ha out of which backfilling will be done in 350.03 ha while final mine void will be created in an area of 55.03 ha with a depth of 30 m. Backfilled quarry area of 350.03 ha shall be reclaimed with plantation. Final mine void will be converted into water reservoir.

(xvi) Transportation of coal has been proposed by road in mine pit head, from surface to end use plant by road. Upto Bhannora Railway Siding (14 Km away) and then by rail to captive Power Plants.

(xvii) Reclamation Plan in an area of 506.78ha, comprising of no external dump, 350.03ha of internal dump and 9.96ha of green belt. In addition to this, an area of 50.58ha, included in the safety zone/rationalization area besides plantation over existing four old OB dumps of 96.21 Ha, has also been proposed for green belt development.

(xviii) No forest land has been reported to be involved in the project. Approval under the Forest (Conservation) Act, 1980 for diversion of non-forestry purposes is not required

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

(xx) The ground water level has been reported to be varying between 4.4m to 15.1 m during pre-monsoon and between 0.5 m to 10.6 m during post-monsoon. Total water requirement for the project is 853 KLD.

(xxi) Approval of the State Ground Water Resource Authority Government of West Bengal for withdrawal of ground water has been obtained vide PO2130220430-40000001 TSE on 30-06-2016.

(xxii) Public hearing for the project of 4 MTPA capacity in an area of 937.44 ha was conducted on 22.02,2019 at Jamuraia Panchayat Samiti Office Compund Major issues raised in the public hearing include CSR activities, employment, Pollution& Environment, health, safety, education etc, Appropriate action to address the issues raised in the Public Hearing have already been proposed to be taken.

(xxiii) Land cost – on negotiation with the land owner, CSR Activities – such as skill development, training, awareness, infrastructure improvement, plantation etc. for which a capital budget of 154.05 Lakhs and 85.95 Lakhs has been proposed. Employment : Direct employment to 1161 persons preferably local. For Pollution and Environmental control various mitigative measures for air, water, noise, groundwater recharge, vibration management, plantation, dust suppression have been proposed in EMP with a financial provision of 997.50Laksh as capital budget and 145 Lakhs as recurring budget have been allocated. In addition CER @ 0.75% of capital cost of the project has also been kept.

(xxiv) Consent to Operate for the existing capacity shall be obtained from the West Bengal State PCB.

(xxv) Local Seasonal Nala is flowing along central part of the lease. The nallah will be diverted in consultation with the Water Resource Department of the State Government.

(xxvi) Regular monitoring of ambient air quality shall be carried out on fortnightly basis. The documented report shall be submitted to WBPCB and also to MoEF&CC along with half yearly EC compliance report.

(xxvii) No court cases, violation cases are pending against the project of the PP.

(xxviii) The project does not involve violation of the EIA Notification, 2006 and amendment issued there under. The coal production from the mine was started from the year 1997 onwards by previous Allottee upto 2014-15. Coal block has been allotted to WBPDDCL Ltd on 31.03.2015. WBPDCL is in the process of obtaining various clearances and has not yet commenced any mining related activity; hence no production has been carried out till date. No excess production of coal from the sanctioned capacity has been realized since the commencement of mining operations. The coal production, realized from the project, from 1993-94 onwards, is as under:

Sr. No.	Year	Extracted Coal	OB Removed
		Million Tonnes	Million Cum
I	**SEAM VI TO IV**		
1	1997-98	0.709	1.34
2	1998-99	1.792	3.69
3	1999-00	2.165	7.3
4	2001-01	2.411	7.78
5	2001-02	2.911	8.27
6	2002-03	3.085	8.5
7	2003-04	3.768	10.94
8	2004-05	3.942	13.21
	Sub Total 1997-98 to 2004-05	**20.783**	**61.03**
9	2005-06	3.992	18.24
10	2006-07	4.765	17.12
11	2007-08	4.229	17.86

Sr.	Year	Extracted Coal	OB Removed
12	2008-09	4.134	12.69
13	2009-10	3.303	11.79
14	2010-11	2.876	10.03
15	2011-12	2.598	9.41
16	2012-13	3.005	12.26
17	2013-14	2.294	9.359
18	April-Dec 2014	1.367	2.977
19	Jan-Mar 2015	0.484	Pro rata 0.484
	Sub Total 2005-06 to 2014-15	**33.047**	**122.22**
	Grand Total =	**53.830**	**183.25**

(xxix) The project involves 103 project affected families. R&R of the PAPs will be done as per LAAR, 2013.
(xxx) Total cost of the project is Rs.33,560 lakhs. Cost of production is Rs.1350/- per tonne, CSR cost is Rs. 2 per tonne, R&R cost will be estimated and disbursed as per the provisions LARR 2013. Environment Management Cost is Rs. 9.97 crores as capital and 1.45 Crores as recurring cost.
(xxxi) Consent to operate (CTO) will be obtained from the West Bengal State Pollution Control Board after obtaining environmental clearance.

44.2.3 During deliberations on the proposal, the Committee noted the following: -

The proposal is for environmental clearance to Tara (East) & Tara (West) Coal Mining project of 4 MTPA capacity of M/s West Bengal Power Development Corporation Limited (WBPDCL) in an area of 937.44 ha located in villages Churulia, Chinchurbill, Deshermohan, Joynagar, Birkulti, Manpur and Joyantipur, Block Jamuria, District Paschim Bardhaman (West Bengal).

There is no forest area involved.

ToR for the project was granted on 12th December, 2018, and the public hearing was conducted by the State Pollution Control Board on 22nd February, 2019 at Jamuria Panchayat Samiti Office Compount, Dist Paschim Bardhaman. Main issues raised during the public hearing are abatement Of pollution, creation or water reservoir, Tree plantation included Rehabilitation & resettlement, employment, control of air pollution, water pollution, supply of drinking water, employment rehabilitation proposal for Birkulti village under Hijal gora Gram Panchayat, etc.

Revised Mining Plan and Mine Closure Plan (3rd Revision) for Tara (East) and Tara (West) Coal Mine of M/s West Bengal Power Development Corporation Ltd. (WBPDCL) was approved by Ministry of Coal on 30th August, 2018.

Baseline Data was generated for the period of October, 2018 to December, 2018. 13 nos. of location were selected for baseline monitoring. Baseline air quality values at ambient air quality monitoring stations are in the range of PM10 43.5 ug/m3 (at Shimuldhi village) to 94.3 ug/m3 (Bhanowara Railway siding), for $PM_{2.5}$ 26.1- 59.3 ug/m3, SO_2 from 21.1 - 48.50 ug/m3 and NO_x from 12.6 - 46.2 ug/m3.

The proposed mining methodology would be mechanized opencast with shovel-dumper combination for overburden and surface miner for coal. The project involves diversion of seasonal nallah entering mine lease area from South, and its realignment in a length of 3.2 km. Irrigation & Waterways Department, Government of West Bengal, vide letter dated 25th March,

2019, has accorded provisional 'In-principle' approval for the proposed diversion scheme, subject to certain terms and conditions.

The project also envisages for diversion of one Zilla Parishad road located in the project area, permission for the same has been taken on 6th March, 2019, by Additional District Magistrate and Additional Executive Officer, Paschim Bardhaman Zila Parishad.

44.2.4 *The EAC, after detailed deliberations, desired for clarifications/inputs in respect of the following:-*

(i) Total project area is 937.46 ha, including mine lease area of 800 ha. There is no Letter of Intent (LOI) available for 137.46 ha, to be issued by State Government.

(ii) Present compliance status of the in-principle approval for the proposed nallah diversion.

(iii) Base line air quality for critical pollutants namely, PM10, PM2.5 at railway siding is on much higher side. Mitigating measures need to be taken for the cumulative values and/or the predicted GLCs to be well within the acceptable limits.

(iv) Railway siding is about 14 km from mine. Road widening shall be done before starting of coal transportation.

(v) Traffic assessment and impact of air quality and habitation along the route (14km)

(vi) Mitigation measures of mining activity for two villages which are coming core zone.

(vii) Effect on ecosystem services available in the mining area.

The proposal was deferred on the above lines

Agenda No.44.3

Cluster No.3 comprising 3 mines in Raniganj Coalfield having total leasehold area of 1628 Ha and capacity of 3.97 MTPA M/s Eastern Coalfield Limited located in Raniganj Coalfields, District Burdwan (West Bengal) - Amendment in Environmental Clearance

[IA/WB/CMIN/61639/2014] F.No. J-11015/13/2010-IA-II(M)

44.3.1 The proposal is for amendment in environmental clearance dated 20th October, 2014 to Cluster No.3 Coal Mining project of 3.97 MTPA capacity of M/s Eastern Coalfields Limited in mine lease area of 1628 ha located in Salanpur CD Block, District Paschim Bardhaman (West Bengal).

44.3.2 The proposal was earlier considered by the EAC in its meeting held during 24th January, 2019 and observed that revised scope of the project was lacking details for opencast and underground mining operations separately (OC&UG), both in terms of mine lease area and the production capacity, which would have different environmental implications. Mine Plan for the Cluster should clearly reflect the proposed changes. The Committee also insisted for past production of coal from the individual mines (OC&UG).

44.3.3 During deliberations, the EAC noted the following:

The proposal is for amendment in environmental clearance dated 20th October, 2014 to Cluster No.3 Coal Mining project of 3.97 MTPA capacity of M/s Eastern Coalfields Limited in combined mine lease area of 1628 ha located in Salanpur CD Block, District Paschim Bardhaman (West Bengal).

Considering the production target set by CIL, re-assessment/rationalization of individual mines is proposed while keeping the combined capacity unchanged in view of the prevailing conditions and potential for achieving optimum production levels.

The proposed restructuring involves stoppage of mining operations from Dabor UG, Bonjemehari UG & Sangramgarh UG coal mines, increase in capacity of Bonjemehari OCP from 0.45 MTPA to 1.47 MTPA and Sangramgarh Extension OC mine from 1 MTPA to 0.20 MTPA.

Revised Mining Plan for the cluster has been approved by the Board of Directors M/s Eastern Coalfields Ltd on 7th December, 2018.

The following table given at point 2.vi of the EC letter vide J-11015/13/2010-IA-II.(M) dated 20th October, 2014:

Sl No		Name of OC Mine	Area (Ha)	Mineable reserves (MT)	Volume of OB to be generated (Million M^3)	Life in years	Back filling start year
1	Dabor UG	Dabor- I&II OC Patch/Mine	347 (quarry area 153.1 Ha)	11.78	35.0	10	3rd
2	Bonjemehari UG	Bonjemehari OC Patch	44	1.32	4.05	4	2nd
3	Sangramgarh UG	Sangramgarh Extension Revised OC Patch	25	2.70	10.38	4	2nd
		Total	416	15.8	49.53		

The proposed changes are in line with the revised mining plan for the cluster, duly approved by the Board of Directors of ECL on 7th December, 2018, with the details as under:-

Sl No.	Name of the Mine	Lease Area (Ha)	Peak Capacity (MTPA)	Revised Life (Yrs)	Remark
1	Dabor OC	1063	2.30	>25	Capacity Reduction and Boundary Adjustment with Bonjemehari UG & OC
2	Bonjemehari OC	304	1.47	>25	Capacity Enhancement & Boundary Adjustment with Dabor UG & OC
3	Sangramgarh OC	261	0.20	>25	Capacity Reduction
	Total	**1628**	**3.97**		

44.3.4 *The EAC, after deliberations, recommended for proposed restructuring of individual mines, involving change in capacities of respective mine lease holds as mentioned in para 44.3.3 above, with the combined capacity of 3.97 MTPA and the total mine lease area remaining the same.*

Agenda No.44.4

Cluster X (6 mines of a combined production of 1.762 MTPA (peak 2.289 MTPA) an ML area of 2057.95 ha and a Coal Washery of 1.6 MTPA (2.08 MTPA) of M/s Bharat Coking Coal Limited. located in (Jharkhand) - For Amendment in Environmental Clearance

[IA/JH/CMIN/8812/2010; F.No. J-11015/380/2010-IA.II(M)]

44.4.1 The proposal is for amendment in environmental clearance dated 6th February, 2013 granted for the Cluster X (6 mines of peak production of 2.289 MTPA in a combined ML area of 2057.95 ha) and Sudamdih Coal Washery (Within the lease hold of Sudamdih Shaft Mine in an area of 18 ha) of 1.6 MTPA of normative and 2.08 MTPA peak production of M/s Bharat Coking Coal Ltd., located in Jharia Coalfields, Dist. Dhanbad (Jharkhand).

(i) Existing EC Specific Condition (i) vis-à-vis Proposed Amendment is as under:

Sl No	As per specific condition (i) of EC dated 6th February, 2013					
	Name of the Mine	Type of Mine UG/OC	Normative Production Capacity (MTY)	Peak Production Capacity (MTY)	Lease Area (Ha)	Mine Life (Years)
1	Bhowrah North	UG	0.11	0.143	208.83	>30
	Bhowrah North	OC	0.42	0.546		4
2	Bhowrah South	UG	0.29	0.377	571.58	>30
	3 Pit	OC	0.235	0.305		4.5
	Chandan (Bhowrah)	OC	0.158	0.205		2.5
3	Patherdih	UG	0.054	0.07	244.34	>30
	Chandan (Patherdih)	OC	0.22	0.286		4
4	Sudamdih Incline	UG	0.09	0.117	254.27	>30
5	Sudamdih Shaft	UG	0.185	0.24	391.5	>30
6	Amlabad Closed	UG	0	0	386.95	
7	Sudamdih Coal Washery (Within the lease hold of Sudamdih Shaft Mine)		1.6	2.08	18	18
	TOTAL		**1.762**	**2.289**	**2057.47**	

*Peak of Cluster will remain same, as peak of individual mine will be achieved in different years to offset loss of production in other mines.

(ii) There will be no change in the peak production capacity of 2.289 MTPA and the total area of 2057.47 ha of the cluster X Group of mines.

(iii) The amendment in the EC in respect of capacities of individual mines in the cluster and lease hold areas for implementation of Master Plan for dealing with fire and Subsidence,

44.4.2 The proposal was earlier considered by the EAC in its 21st meeting held on 27th October, 2017 wherein the Committee deferred the proposal for want of Mining Plan for the cluster, revised and duly approved by the Ministry of Coal/Board of M/s BCCL.

PP in compliance to requirement, has submitted approvals of Mining Plans along with mine closure Plans for the Amalgamated Sudamdih Patherdih OC and Bhowrah South OC, the mines undergoing changes for implementation of GOI approved Master Plan for dealing with fire and subsidence, vide letter dated 9th February, 2019.

44.4.3 During deliberations, the EAC noted the following:

The proposal is for amendment in environmental clearance dated 6th February, 2013 to Cluster No. X (6 mines) Coal Mining project of 2.289 MTPA peak capacity and Sudamdih Coal Washery (Within the lease hold of Sudamdih Shaft Mine in an area of 18 ha) of 1.6 MTPA of normative and 2.08 MTPA peak production of M/s Bharat Coking Coal Ltd. in combined mine lease area of 2057.95 ha located in Jharia Coalfields, District Dhanbad, (Jharkhand).

The proposal has been submitted after considering the implementation of Master Plan for dealing with fire and subsidence without any change in combined peak production capacity of 2.289 MTPA and the total area of 2057.47 ha of the cluster.

The proposed restructuring involves increase in capacity of Bhowrah South OC from 0.51 MTPA to 1.2 MTPA, amalgamation of Patherdih (UG &OC) mine (i.e UG-0.07 & OC-0.286 with Sudamdih incline (UG - 0.117 MTPA) and increase in capacity as Amalgamated Sudamdih Patherdih OC (0.473 to 0.709 MTPA).

Revised Mining Plan for the changed capacities of individual mines namely, Amalgamated SudamdihPatherdih OC and Bhowrah South OC, has been approved by the Board of M/s BCCL on 29th January, 2019 in its 348th meeting.

The proposed changes are in line with the revised mining plan for the cluster, duly approved by the Board of Directors of M/s BCCL on 29th January, 2019 with the details as under:-

Sr. No	Name of the Mine	Type of Mine UG/OC	Peak Production Capacity (MTPA)	Lease Area (Ha)	Mine Life (Years)	
1	Bhowrah North	UG	0.143	208.83	>20	
	Bhowrah North	OC	0.546		6	
2	Bhowrah South	UG	0.377	571.58	30	
		OC	1.2		43	Fire dealing
	Amalagamated Sudamdih Patherdih Mine	OC	0.709	498.61	33	Amalgamation of mines for fire dealing
5	Sudamdih Shaft	UG	0.24	391.5	30	
6	Amlabad Closed	UG	0	386.95	NA	
7	Sudamdih Coal Washery (Within the lease hold of Sudamdih Shaft Mine)		2.08	18	18	
	TOTAL		**2.289**	**2057.47**		

44.4.4 *The EAC, after deliberations, recommended for the proposed restructuring of individual mines, involving change in capacities of respective mine lease holds as mentioned in para 44.3.3 above, with the combined capacity of 2.289 MTPA and the total mine lease area remaining the same.*

Agenda No.44.5

Dulanga Opencast Coal Mining Project (8 MTPA) M/s National Thermal Power Corporation Ltd Ib Valley Coalfields, located in District Sundargarh (Orissa) - Amendment in Environmental Clearance

[IA/OR/CMIN/10821/2007] F.No. J-11015/1140/2007-IA.II(M)

44.5.1 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 No64 O/9 and 64 O/13 and is bounded by the geographical coordinates ranging from latitude 21°55'37" N to 21°56'43" N and longitudes 83°47'28"E and 83°49'05"E.
(ii) Coal linkage of the project is proposed for Darlipali Super Thermal Power Project Stage-I (2x800) MW to meet the energy requirements of Odisha State.
(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 approx.1276 at peak capacity will be provided from the project.
(v) The project is reported to be beneficial in terms of meet the power requirement of Odisha by supplying coal to Darlipali STPP. It will also cater infrastructure development in nearby areas and improve education and health conditions through CSR activities.
(vi) Earlier, the Environment Clearance (EC) to the project was obtained under EIA Notification, 2006 vide Ministry's letter No J/11015/11402007-IA.II(M) dated 3rd March, 2014 for 7 MTPA in mine lease area of 785.37 ha (803.71- ha -18.34 ha = 785.37 ha).
(vii) Total mining lease area as per block allotment is 872.29 Ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved by Ministry of Coal on 14th August, 2012.
(viii) The land usage pattern of the project is as follows:

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

S. No.	Land Use	Within ML Area	Outside ML Area	Total
1	Private Land	186.91	144.07	330.98
2	Forest Land	251.63	50.88	302.51
3	Reserve Forest land	108.95	0.70	109.65
4	GM Land	106.62	40.87	147.49
	Total Project Area =	654.11	236.52	890.63

Post Mining land use details

S. No.	Land use	Land use (ha)					
		Plantation	Water Body	Bund	Public Use	Undisturbed	Total
1	Top Soil Dump	3.84	0	0	0	0	3.84
2	Coal Stock Yard	2.75	0	0	0	0	2.75
3	Surface Dump	106.50	0	0	0	0	106.50
4	Excavation	351.23	159.55	0	0	0	510.78
5	Facilities, Industrial & Residential Buildings	0	0	0	27.73	0	27.73
6	Roads	0	0	0	13.19	0	13.19
7	Surface Water Reservoir	2.14	0	0	0	0	2.14
8	Bund along Garia Nala	0	0	10.03	0	0	10.03
9	Diversion of GariaNala	0	20.48	0	0	0	20.48
10	Undisturbed Area	0	0	0	0	86.25	86.25
11	Staff Colony	0	0	0	20.00	0	20.00
12	Phase II Area	0	0	0	0	86.93	86.93
	Total Area =	**466.46**	**180.03**	**10.03**	**60.92**	**86.93**	**890.62**

(ix) Total geological reserve reported in the mine lease area is 438.28 MT (excluding blocked reserves) with 156.76 MT mineable reserves. Out of total mineable reserve of 156.76MT, 152.05 MT are available for extraction. Percent of extraction is 77.09 %.
(x) 15 seams with thickness ranging from 40 m – 45 m are workable. Grade of coal is F & G, stripping ratio 2.59 m^3/t, while gradient is 5 to 11 degrees.
(xi) Method of mining operations envisages by Mechanized Open cast mining with shovel-dumper combination & CSM for two seams.
(xii) Life of mine is 24 years (excluding construction period of 2 years).
(xiii) The project has 01 No. external OB dumps in an area of 92.66 Hawith 60 m height and 28.5 Mm^3 of OB. 01 internal OB in an area of 413.07 ha with 365.50 Mm^3 of OB is envisaged in the project.
(xiv) Total quarry area is 510.77 ha out of which backfilling will be done in 413.07 ha while final mine void will be created in an area of 159 ha with a depth of 40-55 m. Backfilled quarry area of 413.07 ha shall be reclaimed with plantation. Final mine void will be converted to afforestation and other area.
(xv) Transportation of coal has been proposed by dumper in mine pit head, from surface to siding truck and at sidings by belt conveyor. From Mine coal will be transported to MGR. However temporary up to completion of MGR, coal will be transported from mine by Tippers through road.
(xvi) Reclamation Plan in an area of 466.46 ha, comprising of 92.66 ha of external dump, 413.07 ha of internal dump and 9.91 ha of green belt. In addition to this, an area included in the safety zone/rationalization area, has also been proposed for green belt development.
(xvii) 304.75 ha of forest land has been reported to be involved in the project. Stage-II approval under the Forest (Conservation) Act, 1980 for diversion of 304.75 ha of forest land for non-forestry purposes has been obtained vides MoEF&CC letter No. 8-23/2013-FC dated 23rd December, 2015.
(xviii)No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been reported with 10 km boundary of the project.
(xix) The ground water level has been reported to be varying between 5 m to 20 m. Total water requirement for the project is1500 m^3/day at peak production.
(xx) Approval of the Central Ground Water Authority obtained on 30th September,2015 and revalidated on 04th December, 2017.
(xxi) Public hearing for the project of 7 MTPA capacity in an area of 785.37 ha was conducted on 2nd September, 2010 at G P Office, Sanghumunda, Sundargarh. Major issues raised in the public hearing include employment, education, health, land acquisition etc. Appropriate action to address the issues raised in the Public Hearing has already been taken as far as possible.
(xxii) Consent to Establish for the existing capacity was obtained from the State PCB on 27th November, 2012.
(xxiii)Garia Nallah flowing through the middle of the property almost along the strikes line of the seams. It is a tributary to Basundhara Nalla which joins in Ib River. Ib River is a tributary to Mahanadi over which Hirakud Dam is built. Two subsidiary nallas – Baidhara Nala and Nala B entering the property in the South-Western boundary of the property which also join Garia Nala before exiting the block.
(xxiv) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is being submitted 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.
(xxv) No court cases, violation cases are pending against the project of the PP.
(xxvi) The project does not involve violation of the EIA Notification, 2006 and amendment issued thereunder. The coal production (75 metric tonnes) from the mine was started from the 21st March, 2018 onwards. No excess production of coal from the sanctioned capacity has been realized since the commencement of mining operations.

(xxvii) The project involves 778 project affected families. R&R of the PAPs will be done as per approved R&R plan.
(xxviii) Total cost of the project is Rs. 1073 Crores. Cost of production is Rs. 1461.10/- per tonne. CSR and R&R cost is Rs. 339.33 Crore. Rs. 1591.93 Lakh as capital investment. 733.53 Lakh as recurring EMP expenditure during production stage.
(xxix) Consent to operate (CTO) was obtained from the State Pollution Control Board on 25.03.2019 and is valid till 31st March, 2020.
(xxx) To assess the impact due to the proposed transportation of coal from Dulanga CMP to Darlipali STPP for temporary period of 25 months, a study was carried out with the following objectives: (i) Traffic and road surveys for assessment of carrying capacity on route.
(ii) Monitoring of air quality and noise levels along the proposed route.
(iii) Air quality modelling for impact assessment of incremental ground level concentration of air pollutants.
(iv) Data collection regarding flora along the road, public health and opinion survey.
(xxxi) (v) Identification of villages and forest within 100 m along the alternate routes. All the above have been described in subsequent sections. The road width measurement, traffic surveys, collection of air quality, noise level, air quality prediction modelling and details of vegetation along the route has been carried out by M/s Min Mec Consultancy Pvt. Ltd. and M/s Min Mec R&D Laboratory, New Delhi (NABL accreditation certificate no. TC6337) between 22nd May - 21st June, 2017. The route that had been surveyed previously were traversed again during 7-8th June, 2018 to reverify road widths and its condition. It has been found that, the patches between Durubaga Chowk to Duduka Chowk, which were under widening during previous survey

44.5.2 During deliberations, the Committee noted the following:-

The proposal is for amendment in environmental clearance dated 3rd March, 2014 granted by the Ministry in favour of M/s NTPC Ltd for Dulanga Coal Mining Project (DLCMP) of 7 MTPA in an area of 785.37 ha located in Ib Valley Coalfields, District Sundargarh (Odisha). The EC was subsequently amended vide letters dated 9th February, 2016 & 8th August, 2018.

Vide letter dated 8th August, 2018, earlier stipulated conditions for coal transportation was revised as under:-
'*Coal transportation of 2000 tonnes per day (200 trucks to & fro) from the coal mine to Lara STPP shall be carried out through Route-3 (117.86 km) up to September, 2019 as an interim arrangement only or till commissioning of Darlipali TPP, whichever is earlier. Meanwhile, all efforts shall be made to start production of coal from its linked Talaipalli coal mine and complete the associated MGR system by March, 2020.'*

Darlipalli STPP is having bridge linkage from MCL for 1.719 MT and SECL for 0.252 MT. However to fulfil the entire coal demand for operation, coal will also be required from Dulanga CMP. The dedicated MGR system linking Dulanga CMP to Darlipali STPP is delayed due to land acquisition. Therefore, for sustained coal supply, it is proposed to transport coal from Dulanga CMP to Darlipali STPP by road (35.77 km) for a period of 25 months i.e. from October, 2018 to October, 2020. Accordingly, amendment in EC is required to allow transportation of 6000 TPD of coal from Dulanga CMP to Darlipalli STPP till October, 2020.

44.5.3 *The EAC, after deliberations, recommended for the proposed amendments subject to construction of 7 m wide road (pucca/bituminous) throughout the transportation route, and taking necessary mitigation and safety measures for habitation along the proposed route. Necessary approval for preparedness of the road shall be obtained from the concerned regulatory authority before transportation of coal through the changed route.*

Agenda No.44.6

North Urimari Opencast Coal Mining Project of 3 MTPA by M/s Central Coalfields Limited in mine lease area of 516.90 ha in Tehsil Barkagaon District Hazaribagh (Jharkhand) - Revalidation of Environmental Clearance

[IA/JH/CMIN/75208/2018] F.No. J-11015/51/2018-IA.II(M)

44.6.1 The proposal is for revalidation of the environmental clearance dated 8th February, 2006 granted by the Ministry in favour of M/s Central Coalfields Ltd for North Urimari Opencast Coal Mine Project of 3 MTPA in mine lease area of 516.90 ha located village & tehsil Urimari, District Hazaribagh (Jharkhand), as mandated under the Ministry's Notification dated 6th April, 2018.

44.6.2 The proposal was earlier considered by the sectoral EAC in its meeting held on 24th July, 2018, wherein the Committee desired for information in respect of the following:-

(i) Public notice to be issued in leading newspapers (one national and two local) for information of the stakeholders about commencement of the project and present coal mining operations of capacity 3 MTPA in mine lease area of 523.06 ha, inviting comments and their redressal,
(ii) Mining Plan and the Mine Closure Plan duly approved by the competent authority,
(iii) Forest clearance for diversion of the forest land of 226.51 ha for non-forestry purposes.
(iv) Compliance status of the conditions stipulated in the environmental clearance dated 8th February, 2006 from the Regional Office at Ranchi,
(v) Consent to operate from the State Pollution Control Board for the present mining operations,
(vi) Redressal of issues raised during the last public hearing conducted by the SPCB on 8th October, 2004, along with the R&R details duly certified by the State Government,
(vii) Details of court cases and the compliance status,

44.6.3 In response, parawise details provided are as under:-

S. No.	Additional Information sought by EAC	Compliance
1	Public notice to be issued in leading newspapers (one national and two local) for information of the stakeholders about commencement of the project and present coal mining operations of capacity 3 MTPA in mine lease area of 523.06 ha, inviting comments and their redressal.	The public notice was issued in leading newspapers for information of the stakeholders about commencement of North Urimari OCP as per the Environment Clearance no granted vide letter No.J-11015/307/2005-IA.II(M) dated 8th February, 2006 in The Times of India, Dainik Jagran and Dainik Bhaskar on 7th August, 2018.
2	Mining Plan and the Mine Closure Plan duly approved by the competent authority.	Mining Plan for an area of 523.06 ha was approved by the Board of M/s Central Coalfields Ltd on 18th September, 2018.
3	Forest clearance for diversion of the forest land of 226.51 ha for non-forestry purposes.	The stage-II Forest Clearance vide letter dated 3rd August, 2011 for diversion of the forestland of 226.51 ha.

4	Compliance status of the conditions stipulated in the environmental clearance dated 8th February, 2006 from the Regional Office at Ranchi	The compliance status of the conditions stipulated in the environmental clearance dated 8th February, 2006 from the Regional Office, Ranchi vide letter no: 103-97/05/EPE/2800 Dated: 20/12/2018.
5	Consent to operate from the State Pollution Control Board for the present mining operations	Consent to operate from the State Pollution Control Board for the present mining operations issued vide no: JSPCB / HO / RNC / CTO 2149892 / 2018 / 1251 Dated: 25/07/2018.
6	Redressal of issues raised during the last public hearing conducted by the SPCB on 8th October, 2004, along with the R&R details duly certified by the State Government.	A concise report of action taken by project to redress the issues raised during the last public hearing conducted by the SPCB on 8th October, 2004, along with the R&R details is submitted
7	Details of court cases and the compliance status.	No Court Case is pending

44.6.4 *The EAC, after detailed deliberations on the proposal and taking note of compliance of its earlier observations (para 44.6.3 above), recommended for revalidation of the environmental clearance dated 8th February, 2006, as mandated under the Ministry's Notification dated 6th April, 2018, subject to terms and conditions stipulated therein remaining the same.*

Agenda No.44.7

Amrapali coal mining project of 12 MTPA in an area of 619.87 ha of M/s Central Coalfields Limited, located in Tehsil Tandwa, District Chatra (Jharkhand) - Revalidation of Environmental Clearance

[IA/JH/CMIN/75225/2018] F.No. J-11015/52/2018-IA-II(M)

44.7.1 The proposal is for revalidation of the environmental clearance dated 3rd January, 2006 granted by the Ministry in favour of M/s Central Coalfields Ltd for Amrapali Opencast Coal Mining Project of 12 MTPA in mine lease area of 1426.08 ha located villages Khumarang Khurd, Khumarang Kalan, Ursu, Binglat, Honhe, tehsil Pachra Block, District Chatra (Jharkhand), as mandated under the Ministry's Notification dated 6th April, 2018.

44.7.2 The proposal was earlier considered by the sectoral EAC in its meeting held on 24th July, 2018, wherein the Committee desired for information in respect of the following:-

(i) Public notice to be issued in leading newspapers (one national and two local) for information of the stakeholders about commencement of the project and present coal mining operations of capacity 12 MTPA in mine lease area of 1426.08 ha, inviting comments and their redressal,
(ii) Mining Plan and the Mine Closure Plan duly approved by the competent authority,
(iii) Forest clearance for diversion of the forest land of 226.51 ha for non-forestry purposes.
(iv) Compliance status of the conditions stipulated in the environmental clearance dated 8th February, 2006 from the Regional Office at Ranchi,
(v) Consent to operate from the State Pollution Control Board for the present mining operations,
(vi) Redressal of issues raised during the last public hearing conducted by the SPCB on 8th October, 2004, along with the R&R details duly certified by the State Government,

(vii) Details of court cases and the compliance status,

44.7.3 In response, parawise details provided are as under:-

S. No.	Additional Information sought by EAC	Compliance
1	Public notice to be issued in leading newspapers (one national and two local) for information of the stakeholders about commencement of the project and present coal mining operations of capacity 3.50 MTPA in mine lease area of 944.65 ha, inviting comments and their redressal	The public notice was issued in leading newspaper for information of the stakeholders about commencement of Amrapali OCP as per the Environment Clearance no granted vide no: J11015/109/2003-IA-II(M) Dated: 03/01/2006 in The Telegraph, Hindustan and Prabhat Khabar on 07/08/2018. No comment has been received against the public notice
2	Mining Plan and the Mine Closure Plan duly approved by the competent authority	Mining Plan and the mine closure plan for an area of 619.87 ha was approved by the Board of M/s Central Coalfields Ltd on 30th October, 2018
3	Forest clearance for diversion of the forest land of 531.64 ha for non-forestry purposes.	The stage-II Forest Clearance letter for diversion of the forestland of 531.64 ha for non-forestry purposes was approved on 12th October, 2010.
4	Compliance status of the conditions stipulated in the environmental clearance dated 3rd January, 2006 from the Regional Office at Ranchi,	The compliance status of the conditions stipulated in the environmental clearance dated 3rd January, 2006 from the Regional Office at Ranchi is being submitted as received vide letter no: 103-80/05/EPE/2596 Dated: 14/09/2018. Action has been initiated to comply with all EC conditions
5	Consent to operate from the State Pollution Control Board for the present mining operations,	Consent to operate from the State Pollution Control Board for the present mining operations issued vide no: JSPCB/HO/RNC/CTO1698172/2017/ 2093 Dated: 31/12/2017.
6	Redressal of issues raised during the last public hearing conducted by the SPCB on 2nd April, 2003, along with the R&R details duly certified by the State Government,	A concise report of action taken by project to redress the issues raised during the last public hearing conducted by the SPCB on 2nd April 2003, along with the R&R details has been submitted
7	Details of court cases and the compliance status	A PIL vide no: WP(PIL) No. 2775 of 2015 Dated: 29/06/2015 is pending in Hon'ble High Court of Jharkhand

44.7.4 *The EAC, after detailed deliberations on the proposal and taking note of compliance of its earlier observations (para 44.7.3 above), recommended for revalidation of the environmental clearance dated 3rd January, 2006, as mandated under the Ministry's Notification dated 6th April, 2018, subject to terms and conditions stipulated therein remaining the same.*

Agenda No.44.8

North-West (NW) Quarry of Pakri Barwadih Opencast Coal Mine Block M/s National Thermal Power Corporation Ltd located in Tehsil Keredari, District Hazaribag, (Jharkhand) - Terms of Reference

[IA/JH/CMIN/82224/2018] F.No. J-11015/38/2007-IA.II(M)

44.8.1 The proposal is for obtaining Terms of Reference for North West (NW) Quarry of Pakri Barwadih Coal Mine Project of 3 MTPA capacity in mine lease area of 485.159 ha of M/s NTPC Ltd. located in village Bariatu, Basaria, Beltu, Jabra, Kandaber, Nawadih, Sirma and Urub, District Hazaribagh (Jharkhand).

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

(i) The project area is covered under Survey of India Topo Sheet No. 73 E/1 (R.F. 1:50,000) and is bound by the geographical coordinates ranging from23°54'08" N to 23°55'40"N and longitudes 85°09'19" E to 85°11'11" E.
(ii) Coal linkage of the project is proposed as basket source for NTPC power projects.
(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: Employment to about 862 persons will be provided from the project in different categories *i.*e. management, supervisory, highly skilled, skilled, semi-skilled, and unskilled workmen etc. Opportunity for indirect employment opportunities is also likely to be generated.
(v) The project is reported to be beneficial in terms of production of coal for meeting requirement of coal and reducing the gap in the demand supply of coal in NTPC Power Stations.
(vi) Earlier, the Environment Clearance for Pakri Barwadih Coal Mine project (15 MTPA form West & East Quarry) was obtained under EIA Notification, 2006 vide Ministry's letter No. J-11015/692/2007-IA-II(M) dated 19.05.2009 for 15 MTPA in mine lease area of 4141 ha.
(vii) Total mining lease area as per block allotment is 4626 ha. Mining Plan (Including Progressive Mine Closure Plan) for 15 MTPA (West and East Quarry) has been approved by Ministry of Coal (MoC) on 26.08.2006 and Revised Mining Plan (including the NW area) for a rated capacity of 18 MTPA was approved by MoC vide letter dated 07.03.2016.
(viii) The land usage pattern of the project is as follows:

Pre-mining land use details(Ha)

Sl. No.	**Type**		**Area**
I. Within ML			
1	Tenancy	Agricultural	113.557
		Habitation	
		Grazing	
		Barren	
2	Govt. Non Forest	Agricultural	19.713
		Habitation	
		Grazing	
		Barren	
3	GMJJ		24.666**
4	Forest	Forest	327.224**
	Total		**485.16**
II. Outside the ML			
No additional land is required for the colony of NW Quarry and PAF's of NW Quarry. They may be accommodated /adjusted within the earlier acquired land for Rehabilitation for Colony & Township of PB Coal Block. **Out of total forest 327.224 Ha, an area of 20.692 Ha of forestland was already transferred to NTPC vide MoEF&CC letter dated 17.09.2010.			

Post Mining Land Use Pattern* (Ha)

Sl. No.	Type	Area
1	Excavated Void	105.31
2	Backfill area	335.43
3	Barrier zone	1.03
4	Proposed road on North side	1.24
5	Area under Nala/ River	16.00
6	External dump	14.45
7	Top soil dump	2.00
8	Settling pond	1.03
9	Infrastructure area	4.85
10	Rationalisation /Unutilized area	3.81
11	Area for UG entry	0.00
Total		**485.16**

* *Post* mining *land use is indicative only as the present proposal is for 25 ears only.*

(ix) Total geological reserve reported in the mine lease area is 137.584 MT with 105.78 MT mineable reserves. Out of total mineable reserve of MT, 138.96 MT (including additional reserves of barrier 33.18 MT) are available for extraction. Percent of extraction is 76.88%.
(x) 10 seams with thickness ranging from 3m to20m are workable. Grade of coal is G-9 to G-10, stripping ratio 3.15 cum/te, while gradient is 10 to 12 degree.
(xi) Method of mining operations envisages by Opencast (OC) Method with mechanized shovel dumper combination method.
(xii) Life of mine is 52 years including 3 years of construction years.
(xiii) The project has No external OB dumps, 438.24 Mm^3 of OB shall be backfilled internally. The OB from the current mining operations shall be backfilled from 1st year onwards. Internal dump in an area of 335.4 ha with 438.24 $Mm^3$of OB is envisaged in the project.
(xiv) Total quarry area is 485.159 ha out of which backfilling will be done in 335.4 ha while final mine void will be created in an area of 105.31 ha with a depth of 200 m. Backfilled quarry area of 335.4 ha shall be reclaimed with plantation. Final mine void will be converted into water body.
(xv) Transportation of coal has been proposed by Shovel dumpers in mine pit head, from surface to Banadag Railway Siding by 20T-40T dumpers through Service Road of NTPC 13 km and at sidings by Rail to various projects of NTPC.
(xvi) Reclamation Plan covers an area of 485.159 ha, having no external dump, 335.4 ha of internal dump and 24 ha of green belt. In addition to this, an area of 4.88 ha, included in the safety zone/rationalization area, has also been proposed for green belt development.
(xvii) 331.198 ha of forest land have been reported to be involved in the project. Application for Stage-I Forest Clearance (FC) for diversion of 331.198 Ha of forestland involved in project was submitted online on 07.02.2019 and further clarification on 07.03.2019. The complete set of FC application was submitted to MOEF&CC vide letter dated 14.03.2019.
(xviii) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been reported within 10 km boundary of the project.
(xix) The ground water level has been reported to be varying between 5m to 20m during pre-monsoon and between 2m to 15m during post-monsoon. Total water requirement for the project is 810 KLD.
(xx) Khora nalla & Lathorwa Nalla is flowing in West direction and SSE direction respectively adjacent to boundary of Mine lease. The nallah will be diverted in consultation with the Water Resource Department of the State Government.
(xxi) No court cases, violation cases are pending against the project of the PP.
(xxii) The project involves 204 project affected families. R&R of the PAPs will be done as per approved R&R plan formulated in line with R&R Policy 2007, GOI.

(xxiii) Total cost of the project is Rs. 91232 lakhs. Cost of production is Rs. 1331.55/- per tonne., R&R cost is Rs 59.51 crores. Environment Management Cost is Rs. 35.5 crores.

44.8.2 During deliberations, the EAC noted the following:

The proposal is for grant of terms of reference to the project North West (NW) Quarry of Pakri Barwadih Opencast Coal Mine Project of 3 MTPA capacity in mine lease area of 485.159 ha of M/s NTPC Ltd. located in village Bariatu, Basaria, Beltu, Jabra, Kandaber, Nawadih, Sirma and Urub, District Hazaribagh (Jharkhand).

Project involves 331.198 ha of forest land. Approval under the Forest (Conservation) Act, 1980 for diversion of 331.198 ha of forest land for non-forestry use has been submitted on 7th February, 2019 and further clarification on 7th March, 2019.

Total mining lease area as per block allotment is 4626 ha. Mining Plan (Including Progressive Mine Closure Plan) for 15 MTPA (West and East Quarry) has been approved by Ministry of Coal (MoC) on 26.08.2006 and Revised Mining Plan (including the NW area) for a rated capacity of 18 MTPA was approved by MoC vide letter dated 07.03.2016.

Environment Clearance for Pakri Barwadih Coal Mine project (15 MTPA form West & East Quarry) was obtained on 19th May, 2009 for 15 MTPA in mine lease area of 4141 ha.

Project does not involve violation of the EIA Notification, 2006 and amendment issued thereto. The coal production from the mine was started from the year 1954 onwards. No excess production of coal from the mine has been reported since the commencement of mining operations

44.8.3 *The Committee, after deliberations, desired for the EIA/EMP report as specified/notified in the standard ToR applicable for Opencast coal mines, along based on one season baseline data along with the details in respect of the following:-*

- *Public Consultation, including public hearing, shall be conducted through concerned SPCB as per the provisions/procedure contained in the EIA Notification, 2006 for information of the stakeholders about the present coal mining operations inviting comments and their redressal*
- *For proper baseline air quality assessment, adequate monitoring stations (4-5 nos.) in the downwind areas need to be set up and included in the air quality modelling*
- *Valid Mining Plan and the Progressive Mine Closure Plan duly approved by the competent authority*
- *Ecological restoration and mine reclamation plan to be prepared with afforestation of local/native species found in the area.*
- *To know the effect on ecosystem services available in the said mining area and assessment of carrying capacity of the extant ecology therein, study shall be carried out by any reputed institution*
- *Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.*
- *Stage-I/Renewal of forest clearance under the Forest (Conservation) Act, 1980, as the case may be, of the forest land involved in the project for non-forestry purposes.*
- *Details of court cases and the compliance status (if any).*

Agenda No.44.9

Singhori Opencast Coal Mining Project from 0.8 to 1.12 MTPA capacity in mine lease area of 426.0 ha of M/s Western Coalfields Limited located in village Singhori, Tehsil Parseoni, District Nagpur (Maharashtra) - Environmental Clearance

[IA/MH/CMIN/93753/2019;F.No. J-11015/67/2006-IA.II(M)]

44.9.1 The proposal is for environmental clearance for expansion of Singhori Opencast projectof from 0.8 to 1.12 MTPA capacity in mine lease area of 426.0 ha of M/s Western Coalfields Limited located in village Singhori, Tehsil Parseoni, District Nagpur (Maharashtra).

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

(i) The project area is covered under Survey of India Topo Sheet No 55 O/3 and is bounded by the geographical coordinates ranging from 21°16'36" to 21°18'04" N and longitudes79°07'39" E and 79°09'26"E.

(ii) Coal linkage of the project is proposed for MahaGenco use and for various Consumers

(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: Employment to136 nos. persons will be provided from the project.

(vi) The project is reported to be beneficial in terms of: It will bridge the gap (to the extent of the peak production capacity of the project) between demand & supply of non-coking coal for the power houses and other bulk consumers of western as well as southern part of the country.

(vii) Earlier, the environment clearance to the project was obtained under EIA Notification, 2006 vide Ministry's letter No. J-11015/67/2006 dated 17th May, 2007 for 0.80 MTPA in mine lease area of 428.0 ha.

(viii) Total mining lease area is 426.0 ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved by the WCL Board on Vide letter no WCL/BD/SECTT/BM-307/2019/023 dated 1st January, 2019.

(ix) The land usage pattern of the project is as follows: The total land involved in existing Singhori OC is 425.04 ha. The present proposal of expansion envisages increase in only production capacity from 0.80 MTPA to 1.12 MTPA. The land use changes will remain same as per the previously sanctioned EC letter No J-11015/67/2006-IA.II(M) dated 17th May, 2007

Pre-mining land use details

S.No.	Particulars	Land as per existing EC (ha)	Land as per revised Mining Plan (ha)
1.	Tenancy land	404	394.51
2.	Forest land	16.50	14.23
3.	Government land	5.50	16.30
4.	Land for Colony	2.0	0
	Total	428	425.04

Break up of proposed Land use during Mining as per Revised Mining Plan is as given below

S. NO.	PARTICULARS	AREA(ha)
1	Excavation area	96.50
2	External OB Dump	160.00
3	Infrastructure	8.00
4	Embankment	32.00
5	For rationalization of boundary/ Blasting zone	128.54

	Total	425.04

(x) Total geological reserve reported in the mine lease area is35.065 MT with 12.30MT mineable reserve. Out of total mineable reserve of 12.30MT, 12.30MT are available for extraction. Percent of extraction is 35.07%.
(xi) Seven seams with thickness ranging from 0.80 m – 8.06m are workable. Grade of coal is G-8, stripping ratio 1:5.43, while gradient is 1 in 3.5 to 1 in 4.
(xii) Method of mining operations envisages by Opencast with shovel dumper Combination
(xiii) Life of mine is 11 Years.
(xiv) The project has two nos. of dumps in an area of 160.0 ha (135.0 ha- external OB dumps & 25.0 ha- top soil dump) with 5m height and (58.73 Mm3- external OB dumps & 5.56 Mm3- top soil dump) Mm^3 of OB. The OB from the current mining operations will not be backfilled. No internal OB dump is envisaged in the project.
(xv) Total quarry area is 96.50 ha. No backfilling will be made in quarry area. Final mine void will be created in an area of 96.50 ha with a depth of 150.0 m. Final mine void will be converted into water body.
(xvi) Transportation of coal has been proposed by dumpers in mine pit head, from surface to siding by tippers/dumpers and at sidings by pay loaders.
(xvii) Reclamation Plan/afforestation plan in an area of 197.0ha, comprising of 105.0 ha - external dump, 25.0 – top soil dump, roads - 0.50 ha, built up area – 1.50 ha, undisturbed area- 50.0 ha, embankment – 15.0 ha) (Reclaimed with plantation 16.50 ha of forest land has been reported to be involved in the project. (However as per 7/12 records of state revenue department, total forest land involved is 15.19 ha.)

- FC (Stage II) secured vide FLD-3408/C.R.348/F-10 dated 29th November, 2018 for Diversion of 14.23 ha. (Originally proposed 15.19 ha.) of Zudpi Jungle land under Forest (Conservation) Act, 1980 in favor of Western Coalfields Limited (WCL) for Singori Open Cast Mine Project.
- FC (Stage-I) secured vide F. No. FC-I/MH-06/2015-NGP/1318 dated 3rd February, 2017 for Diversion of 0.96 Ha of Zudupi Jungle land in favour Executive, Engineer, Civil Construction Circle, Maharshtra for laying of Ash Disposal pipeline from Khaparkheda Thermal Power station to Nandgaon Ash bund in Nagpur District in the state of Maharashtra

(xviii) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been reported with 10 km boundary of the project.
(xix) The ground water level has been reported to be varying between 10.0m to 14.45 m during pre-monsoon and between 9.30m to 14.40 m during post-monsoon (core zone).Total water requirement for the project is 275 KLD.
(xx) Application for obtaining the approval of the Central Ground Water Authority for withdrawal of groundwater from CGWA has been applied vide 21-4/1161/MH/MIN/2017 dated 21.06.2017.The Project has been recommended for grant of NOC by Regional Office, CGWB, Nagpur and forwarded to CGWA Delhi on 27th March, 2019
(xxi) Public hearing for the project of 0.80 MTPA capacity in an area of 428.0 ha was conducted on 26th April, 2005 at Bachal Sabhagruha, Collectorate, Nagpur Dist. Nagpur. Major issues raised in the public hearing includes:

- WCL shall take measure to control air, soil & water pollution to maintain ecological balance and environmental degradation.
- In case of mine water in adjacent areas goes down, WCL shall take exhaustive ground water recharging works for recuperation of ground water level and supply of water to the affected villages during scarcity of water.
- For maintaining ecological balance in surrounding area WCL shall carry out massive tree plantation in open areas as well as avenue plantation on public roads.
- As per representation of villagers WCL shall take a repairing works/tarring of roads where trucks are passing.

- WCL shall examine the representation submitted by Sarpanch to carry out social development works in affected villages in consultation with district administration.
- It is recommended that the matter related to acquisition of land employment if any should be done on priority basis.
- The continuous ambient air quality monitoring station shall be installed in mine premises & results shall be displayed at local Panchayat & Maharashtra Pollution control board

All the issues have been duly addressed and the compliance report has been presented before the committee.

(xxii) Consent to Operate for the existing capacity was obtained from the MPCB and valid till 31st March 2019. However, further consent renewal application has been made for securing CTO from MPCB.

(xxiii) Kanhan River is flowing in buffer area in west direction of the mine boundary. A seasonal nallah measuring 1.8 km will be diverted.

(xxiv) Regular environment monitoring data generated from September, 2017 till November, 2018.Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to MPCB 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.

(xxv) No court cases, violation cases are pending against the project of the PP pertaining to environment.

(xxvi) 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 2017-186 onwards. No excess production of coal from the sanctioned capacity has been realized. The coal production, realized from the project is as under:

Year	EC sanctioned capacity (MTPA)	Actual production (MTPA)	Excess production beyond the EC sanctioned capacity
2017-18	0.80	0.35	Nil

(xxvii) The project involves 197 project affected families.

(xxviii) Total cost of the project is Rs. 205.4914 crore ((As on Mar 2015, present proposal envisage no additional capital requirement). Cost of production is Rs.1047.37/- per tonne., CSR cost is Rs 2 per tonne, R&R cost is Rs 24.94crores. Environment Management Cost is Rs. 97.09 lakhs (capital) has been made. However, Capital – Rs. 45.23 Lakhs & Rs. 19.55 Lakhs in Revenue expenditure already incurred.

(xxix) Consent to operate (CTO) was obtained from the Maharashtra Pollution Control Board and is valid till 31st March, 2019. However, a consent renewal application has been made for securing CTO from MPCB.

44.9.2 During deliberations on the proposal, the Committee noted the following: -

The proposal is for environmental clearance to the expansion of Singhori Opencast Coal Mining project from 0.80 MTPA to 1.12 MTPA of M/s Western Coalfields Limited in mine lease area of 426 ha located in village Singhori, Tehsil Parseoni, District Nagpur (Maharashtra) in terms of the provisions contained in para 7(ii) of the EIA Notification, 2006.

As per revenue records (7/12) of the State Government, forest land involved is 15.19 ha. Stage-II forest clearance for diversion of 14.23 ha of forest land, has been obtained vide letter dated 29th November, 2018. But the remaining forest land of 0.96 ha has been diverted in favour of MAHAGENCO on 3rd February, 2017.

Earlier, Singhori Opencast Coal Mining project for its capacity of 0.80 MTPA in an area of 428 ha was granted environmental clearance by the Ministry vide letter dated 17th May, 2007. The

land acquisition within sanctioned capital could not be completed due to new R&R policy of Coal India Limited and land acquisition policy of Maharashtra Govt, and thus causing delay in implementation of the project.

The details of production achieved are given below:

Year	EC capacity (MTPA)	Actual production (MTPA)
2017-18	0.80	0.35
2018-19 (up to 31.01.2019)	0.80	0.678

Mining plan including Mine Closure Plan for the project to effect increase in production capacity from 0.80 MTPA to 1.12 MTPA in an area of 426 ha was approved by WCL Board vide resolution no. WCL/BD/SECTT/CR-01-2019-20/2019/430 dated 1st January, 2019.

The Ministry's Regional Office at Nagpur has carried out site visit on 3rd January, 2019 and submitted monitoring report on compliance status of EC conditions vide their letter dated 31st January, 2019.

44.9.3 *The EAC, after detailed deliberations and in exercise of the provisions contained in para 7(ii) of the EIA Notification, 2006 and consideration of the parameters mentioned in the Ministry's OM dated 15th September, 2017, exempted the project from fresh ToR and public hearing, and recommended for grant of environmental clearance to the expansion of Singhori Opencast Coal Mining project from 0.80 MTPA to 1.12 MTPA of M/s Western Coalfields Limited in mine lease area of 426 ha located in village Singhori, Tehsil Parseoni, District Nagpur (Maharashtra) and further subject to compliance of terms and conditions as applicable, and the additional conditions as under:-*

- *Forest clearance for diversion of forest land of 0.96 ha in the name of MAHAGENCO, shall be transferred to the project proponent, or otherwise, Mining Plan to be revised excluding the said forest land.*
- *The project proponent shall obtain Consent to establish from the State Pollution Control Boards for the proposed peak capacity of 1.12 MTPA prior to commencement of the increased production.*
- *Transportation of coal from face to Coal heap shall be carried out by truck. Further, the coal transportation from Coal heap to Coal Handling Plant shall be carried out through covered trucks.*
- *To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers.*
- *Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at railway siding, etc.*
- *The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 1.12 MTPA.*
- *Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.*
- *Persons of nearby villages shall be given training on livelihood and skill development to make them employable.*
- *To ensure health and welfare of nearby villages, regular medical camps shall be*

organized at least once in six months.

- *Thick green belt of adequate width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check the dust pollution.*
- *Efforts shall be made for utilizing alternate sources of surface water, abandoned mines or else whatsoever and thus minimizing the dependability on a single source.*
- *A third party assessment of EC compliance shall be undertaken once in three years through agency like ICFRI /NEERI/IIT or any other expert agency identified by the Ministry.*

Agenda No.44.10

Dhankasa UG Mining Project (Capacity 1 MTPA (Normative)/1.25 MTPA Peak Production in ML area 582.651 ha M/s Western Coalfields Limited, located in District Chhindwara, (Madhya Pradesh) - Environmental Clearance

[IA/MP/CMIN/72632/2008;F.No. J-11015/451/2008-IA.II(M)]

44.10.1 The proposal is for environmental clearance for Dhankasa UG mine project for 1.00 MTPA (Normative) and 1.25 MTPA (Peak) by M/s Western Coalfields Ltd. including forest land in a ML area of 582.65 ha located in Pench Kanhan Coalfields, District Chhindwara (Madhya Pradesh).

44.10.2 Details of the proposal, as ascertained from the proposal documents and also as informed during the meeting, are reported to be as under:

(i) The project area is covered under Survey of India Topo Sheet No55 N/3(RF 1:50,000) and is bounded by the geographical coordinates ranging from 22°17'39" to 22°19'33" N and longitudes78°59'04" E and 79°01'13"E.

(ii) Coal linkage of the project is proposed for MPPGCL use and for various Consumers

(iii) Joint Venture: There is no joint venture.

(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: Total manpower proposed for this project is 490 nos.

(vi) The project is reported to be beneficial in terms of : It will bridge the gap (to the extent of the peak production capacity of the project) between demand & supply of non-coking coal for the power houses and other bulk consumers of western as well as southern part of the country.

(vii) Earlier, the ToR to the project was obtainedvide Ministry's ToR letter No. J-11015/451/2008-IA.II(M) dated 11-12-2008for Normative capacity of 1.0 MTPA and peak capacity of 1.25 MTPA in mine lease area of 582.65 ha.

(viii) Total mining lease area is582.65 ha. Mining Plan (Including Mine Closure Plan) has been approved by the WCL Board vide dated 29-09-2016.

(ix) The land usage pattern of the project is as follows: The total land involved in Dhankasa UG is 582.65 ha. The present proposal is for EC for Dhankasa UG mine project for normative capacity of 1.00 MTPA and peak capacity of 1.25 MTPA

Pre-mining land use details

Details of changes in land use is provided below:

Pre-mining land use details

Sl. No.	Particulars	Government and (ha)	Tenancy land (ha)	Forest land (ha)	Total (ha)
1.	All Rights	1.463	85.903	206.927	294.293
2.	Surface Rights	-	33.520	-	33.520
3.	Mining Rights	13.882	62.042	178.914	254.838

	Total	15.345	181.465	385.841	582.651

Post Mining – Not Applicable

(x) Total geological reserve reported in the mine lease area is54.031 MT with 44.421MT mineable reserve. Out of total mineable reserve of 44.421MT, 19.00MT are available for extraction. Percent of extraction is 43%.

(xi) Two seams (Seam II & IV) with thickness ranging from 3.50m – 4.75m are workable (excluding intervening parting). Grade of coal is G-7, stripping ratio - Not applicable, Degree of gaseousness is Degree-I while gradient is 1 in 14.

(xii) Method of mining operations envisages Bord and Pillars with continuous miners

(xiii) Life of mine is 23 Years.

(xiv) The details of OB dumping (External and Internal) is not applicable as it is a underground mine

(xv) Quarry details, Final mine void details is not applicable as it is underground mine.

(xvi) Transportation of coal has been proposed by conveyor belt upto surface, from surface to siding by tippers/dumpers and at sidings by pay loaders.

(xvii) Reclamation details (External dump & internal dump) - Not applicable as it is underground mine, however Green belt in 10.00 ha area around infrastructure buildings, Roads and in safety zone has been developed

- Stage – I Forestry clearance of 385.841 ha has been obtained vide letter no. F.No.8-45/2017-FC dated 02-01-2018.

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

(xix) The ground water level has been reported to be varying between 6.90 m to 7.80 m during pre-monsoon and between1.50m to 2.10 m during post-monsoon (core zone). Total water requirement for the project is 952 KLD.

(xx) Application for obtaining the approval of the Central Ground Water Authority for withdrawal of groundwater from CGWA is under preparation.

(xxi) Public hearing for the project of normative capacity of 1.00 MTPA and peak capacity of 1.20 MTPA in an area of 582.65 ha was conducted on 02.03.2009 at Dhankasa village, Amarwada Tehsil, Chhindwara, Madhya Pradesh. No comments/suggestions received for public hearing. Major issues raised in the public hearing include:

- Employment to local populace
- Welfare/CSR works like construction of School, temple, roads connecting Villages, playground, culverts BSNL tower, drinking water facilities in surrounding villages etc.
- Plantation for air pollution control
- Tarpaulin covering of coal transportation trucks
- Environment Protection during coal mining (air, water pollution control measures)

(xxii) Consent to Operate – not applicable as its new project

(xxiii) River/Nallah flowing near or adjacent to the mine- Southerly flowing perennial Gunor River and Dhankasa Nallah flowing westerly is a tributary to Gunor River.

(xxiv) 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.

(xxv) No court cases, violation cases are pending against the project of the PP pertaining to environment.

(xxvi) The project does not involve violation of the EIA Notification, 2006 and amendment issued thereunder. No excess production of coal from the sanctioned capacity has been realized.

(xxvii) The project involves 50 land losers, No village rehabilitation involves.

(xxviii) Total cost of the project is Rs. 458.066 crore. Cost of production is Rs.1545.67/- per tonne., CSR cost is Rs 2 per tonne, R&R cost – Not applicable. Environment Management Cost is Rs. 1.18 Cr. (capital) has been made.
(xxix) Consent to operate (CTO) – Not applicable as it is new project.

44.10.3 The proposal was earlier considered by the EAC in its meeting held on 17-18 May, 2018, wherein observations of the Committee were as below:

(a) The proposal is for environmental clearance to Dhankasa Underground coal mining project Coal of 1.2 MTPA in a total area of 582.651 ha of M/s Western Coalfields Limited located in Pench Kanhan Coalfields, District Chhindwara (Madhya Pradesh).

(b) Out of the total project area of 582.651 ha, forest land involved is 385.841 ha. Stage-I forest clearance has been obtained vide letter dated 2nd January, 2018 for its diversion to non-forestry purposes.

(c) Mining Plan was approved by CIL Board vide letter dated 17th August, 2016.Mine closure plan is an integral part of the approved Mining Plan.

(d) Terms of reference for the project was granted on 11th December, 2008 and the public hearing was conducted by SPCB on 2nd March, 2009. The proposal for environmental clearance was first considered by the EAC in its meeting held on 28-29 October, 2009, wherein the Committee expressed concerns over the coal mine (one of 68 coal blocks/mines in Pench Kanhan Coalfield) located between the Pench and Satpura Tiger Reserves and thus requiring clearance, if any, under the Forest (Conservation) Act, 1980 and/or the Wildlife (Protection) Act, 1972.

(e) Based on the report prepared by the WII Dehradun and subsequent recommendations of the Forest Advisory Committee, the decisions taken by the Ministry regarding EC & FC to coal mining projects in Pench-Kanhan Coalfield in District Chhindwara (MP) vide OM dated 17th June, 2011, included the following:-

(i) As per the boundary of the viable wildlife corridor between Pench and Satpura tiger Reserves identified by the WII, Dehradun, out of the total 68 coal blocks located in Pench-Kanhan Coalfield, ten coal blocks bearing number 55 (Rakhikol), 58 (Nandan-II), 50 (Bansi), 60 (Dahu North), 61 (Rakhinala), 62 (Dahu Extn), 63 (Koyalwari), 64 (Tandsi South), 65 (Tandsi North), 66 (Tambia), 67 (Tandsi-III) and 68 (Dhanwa) are located within the migratory corridor between Pench and Satpura tiger Reserves.
(ii) The minimum width of the corridor identified by the WII Dehradun is approx 3 km.
(iii) No approval under the Forest (Conservation) Act, 1980 or the Environment (Protection) Act, 1986 may be accorded for undertaking mining in any of the said ten coal blocks located within the above corridor.
(iv) In case mining is already being undertaken in any of the said ten coal blocks located within the migratory corridor, no approval under the Forest (Conservation) Act, 1980 or the Environment (Protection) Act, 1986, for renewal of mining lease may be accorded. The mining in these mines shall be closed after expiry of the current mining lease after reclamation of the mined over area. The operating mines may be analyzed and monitored for compliance of conditions having bearing with movement of wildlife.

(f) Having resolved that the Dhankasa coal mine is not located within the migratory corridor between Pench and Satpura Tiger Reserves, the proposal for environmental clearance was again considered by the EAC in its meeting held on 18-19 July, 2011 & 26-27 September, 2011. The Committee recommended the project for grant of EC in its meeting held on 26-27 September, 2011. However, there being no stage-I forest clearance for the forest land of

385.841 ha, the proposal was not taken forward and the project proponent were asked by the Ministry vide letter dated 8th June, 2012 to furnish the stage-I FC to process the matter further.

The Committee, after detailed deliberations, observed that the public hearing was held on 2nd March, 2009, and a long period has since been lapsed. Therefore, public comments/suggestions from the project affected people (PAP) may be invited by publishing the notice in local newspapers/ company website and providing 4 weeks' time for the public to submit their comments/suggestions for further course of action

44.10.4 During deliberations on the proposal, the Committee noted the following: -

The proposal is for environmental clearance to Dhankasa Underground coal mining project Coal of 1.2 MTPA in a total area of 582.651 ha of M/s Western Coalfields Limited located in Pench Kanhan Coalfields, District Chhindwara (Madhya Pradesh).

Out of the total project area of 582.651 ha, forest land involved is 385.841 ha. Stage-I forest clearance has been obtained vide letter dated 2nd January, 2018 for its diversion to non-forestry purposes.

Mining Plan was approved by CIL Board vide letter dated 17th August, 2016. Mine closure plan is an integral part of the approved Mining Plan.

Terms of reference for the project was granted on 11th December, 2008 and the public hearing was conducted by SPCB on 2nd March, 2009. The proposal for environmental clearance was first considered by the EAC in its meeting held on 28-29 October, 2009, wherein the Committee expressed concerns over the coal mine (one of 68 coal blocks/mines in Pench Kanhan Coalfield) located between the Pench and Satpura Tiger Reserves and thus requiring clearance, if any, under the Forest (Conservation) Act, 1980 and/or the Wildlife (Protection) Act, 1972.

In view of compliance of earlier the observations and recommendations of the EAC, public comments/suggestions were invited by publishing the notice in Local newspapers viz. Navbharat (English) and Divya Express (Hindi) on 4th July, 2018 as well as company's website for 4 weeks. No comments/suggestions from the public were received within the 4 weeks time.

44.10.5 *The EAC, in the first instance, observed that the baseline data used for preparation of EIA/EMP report was collected during the year/period 2005, which is not in conformity with the extant norms/guidelines of the Ministry in this regard. The Committee also noted that no proposal was submitted to the concerned regulatory authority for abstraction of ground water.*

The Committee, after detailed deliberations, insisted for collection of one month baseline data for preparation of an addendum to the EIA/EMP report, and also submission of the proposal for extraction of mine water and/or ground water.

The proposal was deferred on the above lines.

Agenda No.44.11

Amlai/New Amlai UG Coal Mine Underground mine in ML area 724 ha of M/s South Eastern Coalfields Limited, located in Village Bargaon, Tehsil Jaithari, District Anuppur (MP) - Revalidation of Environmental Clearance

[IA/MP/CMIN/7575/2005; F.No. J-11015/164/2005-IA.II(M)]

44.11.1 The proposal is for revalidation of environment clearance dated 9th June, 2006 granted by the Ministry in favour of M/s South Eastern Coalfields Ltd for Amlai/ New Amlai UG Coal Mining Project of 0.45 MTPA in an area of 724 ha located in village Bargaon, tehsil Jaithari, District Anuppur (MP), in pursuance of this Ministry's Notification dated 6th April, 2018.

Public hearing for the project was conducted by the State Pollution Control Board on 30th August, 2003.

Project area involves 383 ha of forest land, which is reportedly yet to be diverted for non-forestry purposes, as mandated under the Forest (Conservation) Act, 1980.

Mine was closed on 20th September, 2011 due to exhaustion of coal reserves. Accordingly, revalidation of the said environmental clearance is required not for coal mining operations but to implement the Mine Closure Plan.

44.11.2 *The Committee, after deliberations, desired for inputs/details in respect of the following:-*

- *Public notice shall be issued through concerned SPCB for information of the stakeholders about the present coal mining operations inviting comments and their redressal,*
- *Mining Plan and Progressive Mine Closure Plan duly approved by the competent authority,*
- *Compliance status of the conditions stipulated in the environmental clearance from the concerned Regional Office of the Ministry.*
- *Valid Consent to operate from the State Pollution Control Board for the present mining operations.*
- *Redressal of issues raised during the public hearing conducted by the SPCB.*
- *Coal production realized from the mine from 1993-94 vis-à-vis capacity stipulated in the environment clearance.*
- *Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.*
- *Forest clearance for diversion of 383 ha of forest land as required under the Forest (Conservation) Act, 1980.*
- *Details of court cases and the compliance of the orders, if any.*
- *Compliance of the Ministry's OM dated 30th May, 2018.*

Agenda No.44.12

Rajendra Underground mining project of 0.625 MTPA in an area of 590 ha of M/s South Eastern Coalfields Limited, located in Village Chirihiti, Tehsil Burhar, District Shahdol (MP) - Revalidation of Environmental Clearance

[IA/MP/CMIN/79714/2005; F.No.J-11015/64/2005-IA-II(M)]

44.12.1 The proposal is for revalidation of environment clearance dated 24th May, 2005 granted by the Ministry in favour of M/s South Eastern Coalfields Ltd for Rajendra UG Coal Mining Project of 0.625 MTPA in an area of 590 ha located in village Chirihiti, tehsil Burhar, District Shahpur (MP), in pursuance of this Ministry's Notification dated 6th April, 2018.

Project area involves 204.185 ha of forest land. Stage-II forest clearance for diversion of 150.676 ha of forest land has been obtained for non-forestry purposes, as mandated under the Forest (Conservation) Act, 1980. Forest land of 36 ha has been surrendered to DFO, District

Shahdol (MP). Remaining forest land of 17.50 ha, still covered under the Mining Plan, is yet to be diverted for non-forestry uses.

Public hearing for the project was conducted by the State Pollution Control Board on 30th August, 2003.

Renewal for Consent to operate has been applied on 1st November, 2018 to the State Pollution Control Board.

44.12.2 *The Committee, after deliberations, desired for inputs/details in respect of the following:-*

- *Public notice shall be issued through concerned SPCB for information of the stakeholders about the present coal mining operations inviting comments and their redressal,*
- *Mining Plan and Progressive Mine Closure Plan duly approved by the competent authority,*
- *Compliance status of the conditions stipulated in the environmental clearance from the concerned Regional Office of the Ministry.*
- *Valid Consent to operate from the State Pollution Control Board for the present mining operations.*
- *Redressal of issues raised during the public hearing conducted by the SPCB.*
- *Coal production realized from the mine from 1993-94 vis-à-vis capacity stipulated in the environment clearance.*
- *Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.*
- *Forest clearance for diversion of 17.50 ha of forest land as required under the Forest (Conservation) Act, 1980.*
- *Details of court cases and the compliance of the orders, if any.*
- *Compliance of the Ministry's OM dated 30th May, 2018.*

Agenda No.44.13

Nawapara Undergraound Coal Mine Project of 0.18 MTPA in ML area 451.40 ha of M/s South Eastern Coalfields Limited located in, Maheshpur Village, Tehsil Surajpur, District Surguja (Chhattisgarh) - Revalidation of Environmental Clearance

[IA/CG/CMIN/21020/2002 F.No. J-11015/3/2001-IA.II(M)]

44.13.1 The proposal is for revalidation of environment clearance dated 7th January, 2002 granted by the Ministry in favour of M/s South Eastern Coalfields Ltd for Nawapara Undergraound Coal Mine Project of 0.18 MTPA in an area of 451.4 ha located in village Maheshpur, tehsil Surajpur Development Block, District Surguja (Chhattisgarh), in pursuance of this Ministry's Notification dated 6th April, 2018.

44.13.2 *The Committee, after deliberations understood that project involves violation of production capacity beyond the capacity in environmental clearance from the year 2009-10 to 2013-14. The project proponent was asked to take the proposal in violation committee for further perusal.*

The committee deferred the proposal on the above lines.

Agenda No. 44.14

Singhali Undergraound Coal Mine Project of 0.42 MTPA in area 862.289 ha of M/s South Eastern Coalfields Limited located in village Singhali, Tehsil Korba/Katghora District Korba , (Chhattisgarh) – For Revalidation of Environmental Clearance

[IA/CG/CMIN/7650/2005, F.No. J-11015/179/2005-IA.II]

44.14.1 The proposal is for revalidation of environment clearance dated 9th May, 2006 granted by the Ministry in favour of M/s South Eastern Coalfields Ltd for Singhali Undergraound Coal Mine Project of 0.42 MTPA in area 862.289 ha located in village Singhali, Tehsil Korba/Katghora District Korba, (Chhattisgarh), in pursuance of this Ministry's Notification dated 6th April, 2018.

Project area involves 301.48 ha of forest land. Stage-II forest clearance for diversion of forest land has been obtained for non-forestry purposes, as mandated under the Forest (Conservation) Act, 1980 on 27/28 March, 1995 and its validity period is 30 years.

Public hearing for the project was conducted by the State Pollution Control Board on 17th November, 2004.

Renewal for Consent to operate is obtained and valid upto 30th April, 2020 from the State Pollution Control Board.

44.14.2 *The Committee, after deliberations, desired for inputs/details in respect of the following:-*

- *Public notice shall be issued through concerned SPCB for information of the stakeholders about the present coal mining operations inviting comments and their redressal,*
- *Mining Plan and Progressive Mine Closure Plan duly approved by the competent authority,*
- *Compliance status of the conditions stipulated in the environmental clearance from the concerned Regional Office of the Ministry.*
- *Valid Consent to operate from the State Pollution Control Board for the present mining operations.*
- *Redressal of issues raised during the public hearing conducted by the SPCB.*
- *Coal production realized from the mine from 1993-94 vis-à-vis capacity stipulated in the environment clearance.*
- *Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.*
- *Forest clearance for diversion of 17.50 ha of forest land as required under the Forest (Conservation) Act, 1980.*
- *Details of court cases and the compliance of the orders, if any.*
- *Compliance of the Ministry's OM dated 30th May, 2018.*

Agenda No. 44.15

Expansion of Bijuri underground coal mining project 0.60 MTPA in ML area 216.146 ha M/s South Eastern Coalfields Limited located, in Village Bijuri Tehsil Kotma District Shahdol, (Madhya Pradesh) – For Revalidation of Environmental Clearance

[IA/MP/CMIN/79083/2005 F.No. J-11015/63/2005-IA.II(M)]

44.15.1 The proposal is for revalidation of environment clearance dated 24th May, 2005 granted by the Ministry in favour of M/s South Eastern Coalfields Ltd for Expansion of Bijuri underground coal mining project 0.60 MTPA in ML area 216.146 ha in Village Bijuri Tehsil Kotma District Shahdol, (Madhya Pradesh) in pursuance of this Ministry's Notification dated 6th April, 2018.

No forest land is involved in this Project area

Public hearing for the project was conducted by the State Pollution Control Board on 14th October, 2003.

Renewal for Consent to operate is obtained and valid upto 23rd May April, 2019 from the State Pollution Control Board.

44.15.2 *The Committee, after deliberations, desired for inputs/details in respect of the following:-*

- *Public notice shall be issued through concerned SPCB for information of the stakeholders about the present coal mining operations inviting comments and their redressal,*
- *Mining Plan and Progressive Mine Closure Plan duly approved by the competent authority,*
- *Compliance status of the conditions stipulated in the environmental clearance from the concerned Regional Office of the Ministry.*
- *Valid Consent to operate from the State Pollution Control Board for the present mining operations.*
- *Redressal of issues raised during the public hearing conducted by the SPCB.*
- *Coal production realized from the mine from 1993-94 vis-à-vis capacity stipulated in the environment clearance.*
- *Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.*
- *Forest clearance for diversion of 17.50 ha of forest land as required under the Forest (Conservation) Act, 1980.*
- *Details of court cases and the compliance of the orders, if any.*
- *Compliance of the Ministry's OM dated 30th May, 2018.*

Agenda No. 44.16

Rajnagar Opencast Coal Mine Project (from 1 MTPA to 1.7 MTPA. of M/s South Eastern Coalfields Limited located in Village Rajnagar, Tehsil Kotma, District Shahdol, (Madhya Pradesh) – For Revalidation of Environmental Clearance

[IA/MP/CMIN/11610/2003, F.No. J-11015/66/2005-IA-II(M)]

44.16.1 The proposal is for revalidation of environment clearance dated 9th May, 2006 granted by the Ministry in favour of M/s South Eastern Coalfields Ltd for Rajnagar Opencast Coal Mine Project (from 1 MTPA to 1.7 MTPA. of M/s South Eastern Coalfields Limited located in Village Rajnagar, Tehsil Kotma, District Shahdol, (Madhya Pradesh), in pursuance of this Ministry's Notification dated 6th April, 2018.

Project area involves 153.371 ha of forest land wherein 68.941 ha has been surrendered. Stage-I forest clearance for diversion of forest land has been obtained for non-forestry purposes, as mandated under the Forest (Conservation) Act, 1980 on for 502 ha on 10th January, 2008 and 4.20 ha on 26th November, 2008 and its validity period is 20 years.

Public hearing for the project was conducted by the State Pollution Control Board on 28th August, 2003.

Renewal for Consent to operate was obtained and valid upto 31st December, 2018 from the State Pollution Control Board. Further renewal has been applied.

44.16.2 *The Committee, after deliberations, desired for inputs/details in respect of the following:-*

- *Public notice shall be issued through concerned SPCB for information of the stakeholders about the present coal mining operations inviting comments and their redressal,*
- *Mining Plan and Progressive Mine Closure Plan duly approved by the competent authority,*
- *Compliance status of the conditions stipulated in the environmental clearance from the concerned Regional Office of the Ministry.*
- *Valid Consent to operate from the State Pollution Control Board for the present mining operations.*
- *Redressal of issues raised during the public hearing conducted by the SPCB.*
- *Coal production realized from the mine from 1993-94 vis-à-vis capacity stipulated in the environment clearance.*
- *Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.*
- *Forest clearance for diversion of 17.50 ha of forest land as required under the Forest (Conservation) Act, 1980.*
- *Details of court cases and the compliance of the orders, if any.*
- *Compliance of the Ministry's OM dated 30th May, 2018.*

Agenda No. 44.17

West Jhagrakhand Underground Coal Mine Project 0.33 MTPA of in ML area 1065.67 ha M/s South Eastern Coalfields Limited located in Village Jhagrakand Tehsil Mahendragarh District Korba, (Chhattisgarh) – For Revalidation of Environmental Clearance

[IA/CG/CMIN/7753/2005 F.No. J-11015/196/2005-IA.II(M)]

44.17.1 The proposal is for revalidation of environment clearance dated 6th September, 2006 granted by the Ministry in favour of M/s South Eastern Coalfields Ltd for West Jhagrakhand Underground Coal Mine Project 0.33 MTPA in ML area 1065.67 ha located in Village Jhagrakand Tehsil Mahendragarh District Korba, (Chhattisgarh), in pursuance of this Ministry's Notification dated 6th April, 2018.

Project area involves 265.705 ha of forest land. Stage-I forest clearance for diversion of forest land has been obtained for non-forestry purposes in two parts, as mandated under the Forest (Conservation) Act, 1980 for 40.81 ha on 10th January, 2008 and 256.545 ha on 16th August, 2010.

Public hearing for the project was conducted by the State Pollution Control Board on 8th August, 2003.

Consent to operate was obtained and valid upto 31st August, 2021 from the State Pollution Control Board.

44.17.2 *The Committee, after deliberations, desired for inputs/details in respect of the following:-*

- *Public notice shall be issued through concerned SPCB for information of the stakeholders about the present coal mining operations inviting comments and their redressal,*
- *Mining Plan and Progressive Mine Closure Plan duly approved by the competent authority,*
- *Compliance status of the conditions stipulated in the environmental clearance from the concerned Regional Office of the Ministry.*
- *Valid Consent to operate from the State Pollution Control Board for the present mining operations.*
- *Redressal of issues raised during the public hearing conducted by the SPCB.*
- *Coal production realized from the mine from 1993-94 vis-à-vis capacity stipulated in the environment clearance.*
- *Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.*
- *Forest clearance for diversion of 17.50 ha of forest land as required under the Forest (Conservation) Act, 1980.*
- *Details of court cases and the compliance of the orders, if any.*
- *Compliance of the Ministry's OM dated 30th May, 2018.*

Agenda No. 44.18

Jhirira Underground coal mining project 0.33 MTPA in ML area 557.00 ha M/s South Eastern Coalfields Limited located in Village Dumar Kachhar Tehsil Kotma, District Anuppur , (Madhya Pradesh) – For Revalidation of Environmental Clearance

[IA/MP/CMIN/7363/2002 F.No. J-11015/13/2002-IA.II]

44.18.1 The proposal is for revalidation of environment clearance dated 4th October, 2004 granted by the Ministry in favour of M/s South Eastern Coalfields Ltd for Jhirira Underground coal mining project 0.33 MTPA in ML area 557.00 ha M/s South Eastern Coalfields Limited located in Village Dumar Kachhar Tehsil Kotma, Districts Anuppur , (Madhya Pradesh), in pursuance of this Ministry's Notification dated 6th April, 2018.

Project area involves 557 ha of forest land. Stage-I forest clearance for diversion of forest land has been obtained for non-forestry purposes, as mandated under the Forest (Conservation) Act, 1980 on 13th November, 2003.

Public hearing for the project was conducted by the State Pollution Control Board on 28th May, 2001.

Consent to operate is obtained and valid upto 31st August, 2019 from the State Pollution Control Board.

44.18.2 *The Committee, after deliberations, desired for inputs/details in respect of the following:-*

- *Public notice shall be issued through concerned SPCB for information of the stakeholders about the present coal mining operations inviting comments and their redressal,*
- *Mining Plan and Progressive Mine Closure Plan duly approved by the competent authority,*
- *Compliance status of the conditions stipulated in the environmental clearance from the concerned Regional Office of the Ministry.*

- *Valid Consent to operate from the State Pollution Control Board for the present mining operations.*
- *Redressal of issues raised during the public hearing conducted by the SPCB.*
- *Coal production realized from the mine from 1993-94 vis-à-vis capacity stipulated in the environment clearance.*
- *Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.*
- *Forest clearance for diversion of 17.50 ha of forest land as required under the Forest (Conservation) Act, 1980.*
- *Details of court cases and the compliance of the orders, if any.*

Agenda No. 44.19

Umaria Underground Mining Project 0.35 MTPA in ML area 512.54 ha M/s South Eastern Coalfields Limited located in village Umaria, Bandogarh Tehsil,, Districts Umaria, (Madhya Pradesh) – For Revalidation of Environmental Clearance

[IA/MP/CMIN/77829/2005 F.No. J-11015/90/2005-IA.II]

44.19.1 The proposal is for revalidation of environment clearance dated 20th May, 2005 granted by the Ministry in favour of M/s South Eastern Coalfields Ltd for Umaria Underground Mining Project 0.35 MTPA in ML area 512.54 ha M/s South Eastern Coalfields Limited located in village Umaria, Bandogarh Tehsil,, Districts Umaria, (Madhya Pradesh), in pursuance of this Ministry's Notification dated 6th April, 2018.

No forest land is involved in the Project area of 512.54 ha.

Public hearing for the project was conducted by the State Pollution Control Board on 16th October, 2003.

Renewal of Consent to operate was obtained and valid upto 30th April, 2019 from the State Pollution Control Board.

44.19.2 *The Committee, after deliberations, desired for inputs/details in respect of the following:-*

- *Public notice shall be issued through concerned SPCB for information of the stakeholders about the present coal mining operations inviting comments and their redressal,*
- *Mining Plan and Progressive Mine Closure Plan duly approved by the competent authority,*
- *Compliance status of the conditions stipulated in the environmental clearance from the concerned Regional Office of the Ministry.*
- *Valid Consent to operate from the State Pollution Control Board for the present mining operations.*
- *Redressal of issues raised during the public hearing conducted by the SPCB.*
- *Coal production realized from the mine from 1993-94 vis-à-vis capacity stipulated in the environment clearance.*
- *Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.*

- *Forest clearance for diversion of 17.50 ha of forest land as required under the Forest (Conservation) Act, 1980.*
- *Details of court cases and the compliance of the orders, if any.*
- *Compliance of the Ministry's OM dated 30th May, 2018.*

Agenda No. 44.20

Mahan opencast coal mine project 0.36 MTPA in ML area 201.34 ha M/s South Eastern Coalfields Limited located in Village Kapsara, Tehsil Surajpur, Districts Surguja , (Chhattisgarh) – For Revalidation of Environmental Clearance

[IA/CG/CMIN/77400/2001, F.No. J-11015/14/2001-IA.II]

44.20.1 The proposal is for revalidation of environment clearance dated 31st December, 2001 granted by the Ministry in favour of M/s South Eastern Coalfields Ltd for Mahan opencast coal mine project 0.36 MTPA in ML area 201.34 ha M/s South Eastern Coalfields Limited located in Village Kapsara, Tehsil Surajpur, Districts Surguja , (Chhattisgarh), in pursuance of this Ministry's Notification dated 6th April, 2018.

Project area involves 15.42 ha of forest land. Stage-II forest clearance for diversion of forest land has been obtained for non-forestry purposes, as mandated under the Forest (Conservation) Act, 1980 for 15.42 ha on 2nd September, 1999 and it is valid for 30 years.

Public hearing for the project was conducted by the State Pollution Control Board on 5th August, 1999.

Renewal of Consent to operate was obtained and valid upto 28th November, 2020 from the State Pollution Control Board.

44.20.2 *The Committee, after deliberations, desired for inputs/details in respect of the following:-*

- *Public notice shall be issued through concerned SPCB for information of the stakeholders about the present coal mining operations inviting comments and their redressal,*
- *Mining Plan and Progressive Mine Closure Plan duly approved by the competent authority,*
- *Compliance status of the conditions stipulated in the environmental clearance from the concerned Regional Office of the Ministry.*
- *Valid Consent to operate from the State Pollution Control Board for the present mining operations.*
- *Redressal of issues raised during the public hearing conducted by the SPCB.*
- *Coal production realized from the mine from 1993-94 vis-à-vis capacity stipulated in the environment clearance.*
- *Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.*
- *Forest clearance for diversion of 17.50 ha of forest land as required under the Forest (Conservation) Act, 1980.*
- *Details of court cases and the compliance of the orders, if any.*

Agenda No.44.21

Gayatri Underground Coal Mining Project 0.30 MTPA in ML area 507.472 ha M/s South Eastern Coalfields Limited located in Getra village Tehsil Ambikapur, District Surguja, (Chhattisgarh) - For Revalidation of Environmental Clearance

[IA/MP/CMIN/66198/2001,F.No. J-11015/26/2000-IA.II]

44.21.1 The proposal is for revalidation of environment clearance dated 27th November, 2002 granted by the Ministry in favour of M/s South Eastern Coalfields Ltd for Gayatri Underground Coal Mining Project 0.30 MTPA in ML area 507.472 ha located in Getra village Tehsil Ambikapur, District Surguja, (Chhattisgarh), in pursuance of this Ministry's Notification dated 6th April, 2018.

Project area involves 249.762 ha of forest land. Stage-II forest clearance for diversion of forest land has been obtained for non-forestry purposes, as mandated under the Forest (Conservation) Act, 1980 for 249.762 ha on 27th September, 2000.

Public hearing for the project was conducted by the State Pollution Control Board on 12th November, 1999.

Renewal of Consent to operate was obtained and valid upto 28th November, 2019 from the State Pollution Control Board.

44.20.2 *The Committee, after deliberations, desired for inputs/details in respect of the following:-*

- *Public notice shall be issued through concerned SPCB for information of the stakeholders about the present coal mining operations inviting comments and their redressal,*
- *Mining Plan and Progressive Mine Closure Plan duly approved by the competent authority,*
- *Compliance status of the conditions stipulated in the environmental clearance from the concerned Regional Office of the Ministry.*
- *Valid Consent to operate from the State Pollution Control Board for the present mining operations.*
- *Redressal of issues raised during the public hearing conducted by the SPCB.*
- *Coal production realized from the mine from 1993-94 vis-à-vis capacity stipulated in the environment clearance.*
- *Need assessment survey for the activities proposed under the CSR and the comprehensive plan to be prepared accordingly for implementation by the project proponent. Also, impact of the CSR activities undertaken at an interval of 5 years to be evaluated and a report to be submitted.*
- *Forest clearance for diversion of 17.50 ha of forest land as required under the Forest (Conservation) Act, 1980.*
- *Details of court cases and the compliance of the orders, if any.*

Agenda No.44.22

Parsa East and Kanta Basan Opencast Coal Mine from 10 MTPA to 15 MTPA and Pit Head Coal Washery From 10 MTPA to 15 MTPA of M/s Rajasthan Rajya Vidyut Utpadan Nigam Ltd. located in Hasdeo-Arand Coalfields in District Surguja (Chhattisgarh) - Amendment in Environmental Clearance

[IA/CG/CMIN/22290/2014, F.No.J-11015/120/2014-IA.II]

44.22.1 The proposal is for amendment in environmental clearance dated 10th August, 2018 granted by the Ministry in favour of M/s Rajasthan Rajya Vidyut Utpadan Nigam Limited to the expansion of Parsa East and Kanta Basan Opencast Coal Mining Project from 10 MTPA to 15 MTPA and Pit Head Coal Washery From 10 MTPA to 15 MTPA located in Hasdeo-Arand Coalfields in District Surguja (Chhattisgarh).

44.22.2 The said EC stipulates one of the specific conditions no. 4(ix) as 'Transportation *of raw coal, washed coal and rejects shall be through rail*'.

44.22.3 The project proponent has now requested to revise the above condition, especially to exempt transportation of washery rejects by road, for the reasons as under:-

(i) Washery Rejects generated from Parsa East Kanta Basan Coal Block are used by nearby Power Plants with inadequate coal linkage to supplement the coal requirement, after proper blending with high GCV coal. Due to high ash content and low energy (GCV) output, economic viability of rejects depends more on the low transportation cost. As such, rejects are commercially suitable to industries located in closer vicinity to Mine/Washery. PEKB mine is located in the Surguja District of Chhattishgarh, which has no such industry to consume the washery rejects. Therefore, rejects are primarily sold to plants located in Bilaspur, Raipur, adn Raigarh Districts of Chhattisgarh. Direct Railway connectivity to these power plants from PEKB mine is not available. Railway connectivity to these power plants from PEKB mine washery is via Anuppur on SECR rail section, which takes longer route as compared to road connectivity.
(ii) In view of limited usability and techno-economic viability rejects are sold to various power plants mostly of small capacity, located within a distance of 200 to 300 kilometers from Pit-head of PEKB mine/washery and are transported by the buyers to their respective plants by road only.
(iii) List of key customers with details of nearest sidings and distances by Railway as well as by road are furnished in the table below:

Name of Plant	Name of the nearest Railway Siding from PSRS	Railway Route	Railway Distance to Plant's Nearest Rly Siding from PSRS (PEKB pit head siding)	Distance from Siding to Plant by Road	Total Distance (Rail + Road)	Road Distance PEKB to Plant
Jindal Power Limited, O P Jindal Super Thermal Power Station, Tamnar, Raigarh (CG)	Kharsia (KHS) (SECR)	DTL-BRND-USL-BSP-CPH	455	62	517	275
Indermani Coal Beneficiation Pvt Ltd, Beltara,Ratanpur, Bilaspur (CG)	Uslapur (USL) (SECR)	DTL-BRND	348	35	383	131
Indermani Coal Beneficiation and Energy Pvt Ltd, Phase-II, Siltara, Raipur (CG)	Siliari (SLH) (SECR)	DTL-BRND-USL	441	15	456	262
M B Power (Madhya Pradesh) Ltd, Laharpur, Murra Tola, Jaithari, Anuppur (MP)	Anuppur (APR) (SECR)	DTL-BRND	212	20	232	161

N R Sponge and Power Limited, Phase - II, Industrial Area, Siltara, Raipur (CG)	Siliari(SLH) (SECR)	DTL-BRND-USL	441	15	456	275
G R Sponge and Power Limited, Phase - II, Industrial Area, Siltara, Raipur (CG)	Siliari(SLH) (SECR)	DTL-BRND-USL	441	19	460	280
Indus Udyog Infrastructure Pvt. Ltd., Gautauri, Semartal, Bilaspur (CG)	Uslapur(USL) (SECR)	DTL-BRND	348	25	373	170
TRN Energy Pvt Ltd., Bhengari, Newapara, Ghargoda, Raigarh (CG)	Bhupdeopur(BEF) (SECR)	DTL-BRND-USL-BSP-CPH	473	40	513	229
Nav Durga Fuels and Power Ltd. Saraipali, Gharghora Road, Raigarh (CG)	Bhupdeopur(BEF) (SECR)	DTL-BRND-USL-BSP-CPH	473	34	507	246
Salasar Steel and Power Ltd, Gerwani, 13th mile stone, Ambikapur Road, Raigarh (CG)	Bhupdeopur(BEF) (SECR)	DTL-BRND-USL-BSP-CPH	473	30	503	250

** DTL- Daritolla Jn.; BRND – Boridand Jn.; USL – Uslapur Jn.; BSP – Bilaspur Jn.; CHP – Champa Jn.

It is evident from above details that none of the plant comes under Indian Railway network directly. Distance of nearest railway sidings from these plants varies from 20 to 65 km, which is to be covered by public road/highways. Therefore, transportation of rejects to these plants exclusively through rail is not feasible.

(iv) Besides significantly longer distances of plants by railway, transportation through Railways will require bridging the gap between respective railways sidings and the plants by road transportation. It will eventually enhance the cost of handling of cargo at both ends and thereby make the entire process complex and economically unviable for the customers of rejects.
(v) Further, it may kindly be noted that by railway route, total distances of some of plants enlisted in above table exceeds the maximum allowable limit of 500 km, stipulated in the Gazette Notification of MoEF. Therefore, major consumers including Jindal Power Ltd (single largest buyer) will not be able to take off rejects from PEKB Mine by railway.
(vi) Transportation of rejects by road are being carried out by covered trucks with effective dust control measures e.g. regular water spraying on roads and any other conditions imposed by State Pollution Control Board.
(vii) Road transportation of rejects is unavoidable for evacuation of coal from PEKB washery. However, efforts shall be made to minimize the road transportation of rejects by constructing a wharf wall rail loading system to extent possible.

44.22.4 *The EAC, in the first instance, expressed concerns over long distances involved (131-280 km) for transportation of washery rejects by road from the PEKB mine to various power plants and other potential users/customers in nearby areas, and desired to know about the habitation along the proposed road route, its condition and likely impact on air quality/safety due to the said transportation.*

The Committee, after deliberations, desired for formulation of comprehensive guidelines on disposal of washery rejects at the earliest (within six months, finalised and duly approved by the Ministry of Coal, which would take care of all environmental concerns to ensure uniformity in all such cases.

Pending formulation and approval of the comprehensive guidelines, as stated above, the committee resolved that as an interim measure the concerned State Pollution Control Board may stipulate additional terms and conditions in the CTOs depending upon the coal transportation network, air quality and other environmental parameters, but at the same time complying with the National Ambient Air Quality Standards.

Agenda No.44.23

Coal Washery of 2.5 MTPA in an area of 9.93 ha of M/s Phil Coal Beneficiation Pvt Ltd at Village Ghutku Tehsil Takhatpur, District Bilaspur (Chhattisgarh) - Amendment in Environmental Clearance

[IA/CG/CMIN/34509/2015, J-11015/418/2015-IA-II(M)]

44.23.1 The proposal is for amendment in environmental clearance dated 31st July, 2017 granted by the Ministry in favour of M/s M/s Phil Coal Beneficiation Pvt Limited to their project of Coal Washery of 2.5 MTPA in an area of 9.93 ha of at Village Ghutku Tehsil Takhatpur, District Bilaspur (Chhattisgarh).

44.23.2 The said EC stipulates one of the specific conditions regarding coal transportation, as '*Transportation of raw coal, clean coal, middlings and rejects shall be by rail with wagon loading through silo*.'

Based on recommendations of the EAC, the EC was amended vide letter dated 16th April, 2018 to revise the above condition as '*Transport of raw coal, washed coal and the rejects shall be through road/rail (60% by rail and 40% by road) with the exemption from wagon loading through silo, for a period of two years i.e. up to 31st March, 2020 only*.'

44.23.3 The project proponent has now requested for waiver off the condition in view of coal transportation not possible by rail due to non availability of sufficient number of rakes, and also wagon loading through silos not economically viable and feasible for smaller washeries. Accordingly, amendment has been sought to permit coal transportation by road only till the rakes are made available by the railway authorities.

44.23.4 The EAC, while considering the proposal in its earlier meeting held on 24th January, 2019, insisted for a detailed study to be undertaken for assessment of carrying capacity of the proposed route by road, impact of increased traffic on air quality and the local habitation.

The Committee was also of the opinion that the washery may continue to operate in the mean time irrespective of the above condition, but with adequate pollution control measures and strictly complying with the provisions of the Ministry's Notification dated 2nd January, 2014 limiting coal transportation with ash content not exceeding 34%.

In response to the observations of the EAC, the desired report on assessment of carrying capacity of the proposed route by road, impact of increased traffic on air quality and the local habitation has been submitted by the project proponent. On examination, it was decided to take it to the EAC for consideration.

42.23.5 *The EAC, in the first instance, was not comfortable with the said report submitted by the project proponent. Due to absence of any expert/EIA consultant, no explanation was made available to any of the queries/concerns of the Committee, including source of the study/report.*

The EAC, however, after deliberations, reiterated its earlier recommendation for the washery to operate (as mentioned in para 44.23.4), subject to the following:-

(i) The desired dispensation for coal transportation by road in place of 60:40 approved earlier, may be allowed for a period of one year. Based on findings of the study and compliance status of the EC conditions, the project would be considered by the EAC for its continuation thereafter.
(ii) The State Pollution Control Board, while considering consent to operate for the project, shall ensure that with the proposed coal transportation by road, air quality would remain within the national ambient air quality standards
(iii) The project proponent shall ensure compliance of this Ministry's notification dated 2nd January, 2014 for supply of washed coal to thermal power plants.

ANNEXURE-1

Generic ToR for coal washery

i. Siting of washery is critical considering to its environmental impacts. Preference should be given to the site located at pit head; in case such a site is not available, the site should be as close to the pit head as possible and coal should be transported from mine to the washery preferably through closed conveyer belt to avoid air pollution.
ii. The washery shall not be located in eco-sensitive zones areas.
iii. The washery should have a closed system and zero discharge. The storm drainage should be treated in settling ponds before discharging into rivers/streams/water bodies.
iv. A thick Green belt of about 50 m width should be developed surrounding the washery.
v. A brief description of the plant alongwith a layout, the specific technology used and the source of coal should be provided.
vi. The EIA-EMP Repot should cover the impacts and management plan for the project of the capacity for which EC is sought and the impacts of specific activities, including the technology used and coal used, on the environment of the area (within 10km radius), and the environmental quality of air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts for the rated capacity. Cumulative impacts for air and water should be a part of EIA in case coal mine, TPP and other washeries are located within 10km radius. The EIA should also include mitigative measures needed to minimize adverse environmental impacts.
vii. A Study Area Map of the core zone as well as the 10km area of buffer zone showing major industries/mines and other polluting sources should be submitted. These maps shall also indicate the migratory corridors of fauna, if any and areas of endangered fauna; plants of medicinal and economic importance; any ecologically sensitive areas within the 10 km buffer zone; the shortest distance from the National Park/WL Sanctuary Tiger Reserve, etc. alongwith the comments of the Chief Wildlife Warden of the State Govt.
viii. Data of one-season (non-monsoon) primary- base-line data on environmental quality of air (PM_{10}, $PM_{2.5}$, SOx and NOx, noise, water (surface and groundwater), soil be submitted.
ix. The wet washery should generally utilize mine water only. In case mine water is not available, the option of storage of rain water and its use should be examined. Use of surface water and ground water should be avoided.
x. Detailed water balance should be provided. The break-up of water requirement as per different activities in the mining operations vis-a-vis washery should be given. If the source of water is from surface water and/or ground water, the same may be justified besides obtaining approval of the Competent Authority for its drawl.
xi. The entire sequence of mineral production, transportation, handling, transfer and storage of mineral and waste, if any, and their impacts on air quality should be shown in a flow chart with specific points where fugitive emissions can arise and specific pollution control/mitigative measures proposed to be put in place. The washed coal and rejects should be transport by train as far as possible. Road transport of washed coal and rejects should generally be avoided. In case, the TPP is within 10km radius, it should be through conveyer belt. If transport by rail is not feasible because of the topography of the area, the option for transport by road be examined in detail and its impacts along with the mitigation measures should be clearly brought out in EIA/EMP report.
xii. Details of various facilities proposed to be provided in terms of parking, rest areas, canteen etc. to the personnel involved in mineral transportation, workshop and effluents/pollution load from these activities should be provided.
xiii. Impacts of CHP, if any, on air and water quality should also be spelt out alongwith Action Plan.
xiv. O.M.no.J-ll0l3/25/2014-IA.I dated 11th August, 2014 to be followed with regard to CSR activities.

xv. Details of Public Hearing, Notice(s) issued in newspapers, proceedings/minutes of Public Hearing, points raised by the general public and response/commitments made by the proponent along with the Action Plan and budgetary provisions be submitted in tabular form. If the Public Hearing is in the regional language, an authenticated English translation of the same should be provided. Status of any litigations/ court cases filed/pending, if any, against the project should be mentioned in EIA.

xvi. Analysis of samples indicating the following be submitted:

Characteristics of coal prior to washing (this includes grade of coal, other characteristics of ash, S and heavy levels of metals such as Hg, As, Pb, Cr etc).

Characteristics and quantum of coal after washing.

Characteristics and quantum of coal rejects.

xvii. Details of management/disposal/use of coal rejects should be provided. The rejects should be used in TPP located close to the washery as far as possible. If TPP is within a reasonable distance (10 km), transportation should be by conveyor belt. If it is far away, the transportation should be by rail as far as possible.

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

xix. Corporate Environment Responsibility:

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

xx. A detailed action Plan for Corporate Social Responsibility for the project affected people and people living in and around the project area should be provided.

xxi. Permission of drawl of water shall be pre-requisite for consideration of EC.

xxii. Wastewater /effluent should 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.

***

ANNEXURE-2

GENERIC TOR FOR AN OPENCAST COALMINE PROJECT for EC

(i) An EIA-EMP Report shall be prepared for..... MTPA rated capacity in an ML/project area of.....ha based on the generic structure specified in Appendix III of the EIA Notification, 2006.

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

(iii) A toposheet specifying locations of the State, District and Project site should be provided.

(iv) A Study area map of the core zone (project area) and 10 km area of the buffer zone (1: 50,000 scale) clearly delineating the major topographical features such as the land use, surface drainage pattern including rivers/streams/nullahs/canals, locations of human habitations, major constructions including railways, roads, pipelines, major industries/mines and other polluting sources. In case of ecologically sensitive areas such as Biosphere Reserves/National Parks/WL Sanctuaries/ Elephant Reserves, forests (Reserved/Protected), migratory corridors of fauna, and areas where endangered fauna and plants of medicinal and economic importance found in the 15 km study area should be given.

(v) Land use map (1: 50,000 scale) based on a recent satellite imagery of the study area may also be provided with explanatory note on the land use.

(vi) Map showing the core zone delineating the agricultural land (irrigated and un-irrigated, uncultivable land as defined in the revenue records, forest areas (as per records), along with other physical features such as water bodies, etc should be furnished.

(vii) A contour map showing the area drainage of the core zone and 25 km of the study area (where the water courses of the core zone ultimately join the major rivers/streams outside the lease/project area) should also be clearly indicated in the separate map.

(viii) A detailed Site plan of the mine showing the proposed break-up of the land for mining operations such as the quarry area, OB dumps, green belt, safety zone, buildings, infrastructure, CHP, ETP, Stockyard, township/colony (within and adjacent to the ML), undisturbed area -if any, and landscape features such as existing roads, drains/natural water bodies to be left undisturbed along with any natural drainage adjoining the lease /project areas, and modification of thereof in terms of construction of embankments/bunds, proposed diversion/re-channelling of the water courses, etc., approach roads, major haul roads, etc should be indicated.

(ix) In case of any proposed diversion of nallah/canal/river, the proposed route of diversion /modification of drainage and their realignment, construction of embankment etc. should also be shown on the map as per the approval of Irrigation and flood control Department of the concerned state.

(x) Similarly if the project involves diversion of any road/railway line passing through the ML/project area, the proposed route of diversion and its realignment should be shown in the map along with the status of the approval of the competent authority.

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

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

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

(xii) Break-up of lease/project area as per mining plan should be provided.

(xiii) Impact of changes in the land use due to the project if the land is predominantly agricultural land/forestland/grazing land, should be provided.

(xiii) One-season (other than monsoon) primary baseline data on environmental quality - air (PM_{10}, $PM_{2.5}$, SO_x, NO_x and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil - along with one-season met data coinciding with the same season for AAQ collection period should be provided.

(xiv) Map (1: 50, 000 scale) of the study area (core and buffer zone) showing the location of various sampling stations superimposed with location of habitats, other industries/mines, polluting sources, should be provided. The number and location of the sampling stations in both core and buffer zones should be selected on the basis of size of lease/project area, the proposed impacts in the downwind (air)/downstream (surface water)/groundwater regime (based on flow). One station should be in the upwind/upstream/non-impact/non-polluting area as a control station. The monitoring should be as per CPCB guidelines and parameters for water testing for both ground water and surface water as per ISI standards and CPCB classification wherever applicable. Observed values should be provided along with the specified standards.

(xv) 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.

(xvi) 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.

(xvii) 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.

(xviii) Impact of mining on hydrology, modification of natural drainage, diversion and channeling of the existing rivers/water courses flowing though the ML and

adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon.

(xix) Detailed water balance should be provided. The break-up of water requirement for the various mine operations should be given separately.

(xx) 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.

(xxi) 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.

(xxii) Impact of blasting, noise and vibrations should be given.

(xxiii) Impacts of mining on the AAQ and predictions based on modeling using the ISCST-3 (Revised) or latest model should be provided.

(xxiv) 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.

(xxiv) 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.

(xxv) 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^{o} 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.

(xxvi) Efforts be made for maximising progressive internal dumping of O.B., sequential mining , external dump on coal bearing area and later rehandling into the mine void.--to reduce land degradation.

(xxvii) 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.

(xxviii) Progressive Green belt and ecological restoration /afforestation plan (both in text, figures and in the tabular form as per the format of MOEFCC given below) and selection of species (native) based on original survey/land-use should be given.

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

S.N.	Land use Category	Present (1^{st} Year)	5^{th} Year	10^{th} Year	20^{th} Year	24^{th} Year (end of mine life)*
1.	Backfilled Area(Reclaimed with plantation)					
2.	Excavated Area (not reclaimed)/void					
3.	External OB dump					

	Reclaimed with plantation)					
4.	Reclaimed Top soil dump					
5.	Green Built Area					
6.	Undisturbed area (brought under plantation)					
7.	Roads (avenue plantation)					
8.	Area around buildings and Infrastructure					
	TOTAL					

* As a representative example

Table 2 : Stage Wise Cumulative Plantation

S.N.	YEAR*	Green Belt		External Dump		Backfilled Area		Others(Undisturbed Area/etc)		TOTAL	
1.	1st year										
2.	3rd year										
3.	5th year										
4.	10th year										
5.	15th year										
6.	20th year										
7.	25th year										
8.	30th year										
9.	34th year(end of mine life)										
10.	34- 37th Year (Post-mining)										

* As a representative example

(xxix) 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					

(xxx) 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.

(xxxi) 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.

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

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

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

(xxxv) 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.

(xxxvi) 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.

(xxxvii) 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.

(xxxviii) 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.

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

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

(xli) 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.

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

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

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

***

ANNEXURE -3

GENERIC TORs FOR AN UNDERGROUND COALMINE PROJECT

(i) An EIA-EMP Report shall be prepared for..... MTPA rated capacity in an ML/project area of.....ha based on the generic structure specified in Appendix III of the EIA Notification, 2006.

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

(iii) A Study area map of the core zone (project area) and 10 km area of the buffer zone (1: 50,000 scale) clearly delineating the major topographical features such as the land use, surface drainage pattern including rivers/streams/nullahs/canals, locations of human habitations, major constructions including railways, roads, pipelines, major industries/mines and other polluting sources. In case of ecologically sensitive areas such as Biosphere Reserves/National Parks/WL Sanctuaries/ Elephant Reserves, forests (Reserved/Protected), migratory corridors of fauna, and areas where endangered fauna and plants of medicinal and economic importance found in the 15 km study area should be given.

(iv) Map showing the core zone delineating the agricultural land (irrigated and un-irrigated, uncultivable land as defined in the revenue records, forest areas (as per records), along with other physical features such as water bodies, etc should be furnished.

(v) A contour map showing the area drainage of the core zone and 25 km of the study area (where the water courses of the core zone ultimately join the major rivers/streams outside the lease/project area) should also be clearly indicated in the separate map.

(vi) A detailed Site plan of the mine showing the proposed break-up of the land for mining operations such as the quarry area, OB dumps, green belt, safety zone, buildings, infrastructure, CHP, ETP, Stockyard, township/colony (within and adjacent to the ML), undisturbed area -if any, and landscape features such as existing roads, drains/natural water bodies to be left undisturbed along with any natural drainage adjoining the lease /project areas, and modification of thereof in terms of construction of embankments/bunds, proposed diversion/re-channelling of the water courses, etc., approach roads, major haul roads, etc should be indicated.

(vii) Original land use (agricultural land/forestland/grazing land/wasteland/water bodies) of the area should be provided as per the tables given below. Impacts of project, if any on the land use, in particular, agricultural land/forestland/grazing land/water bodies falling within the lease/project and acquired for mining operations should be analyzed. Extent of area under surface rights and under mining rights should be specified.

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

Area under Surface Rights

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

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

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

(x) Details of mining methods, technology, equipment to be used, etc., rationale for selection of specified technology and equipment proposed to be used vis-à-vis the potential impacts should be provided.

(xi) Impact of mining on hydrology, modification of natural drainage, diversion and channeling of the existing rivers/water courses flowing though the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon.

(xii) One-season (other than monsoon) primary baseline data on environmental quality - air (PM_{10}, $PM_{2.5}$, SO_x, NO_x and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil - along with one-season met data coinciding with the same season for AAQ collection period should be provided.

(xiii) Map (1: 50, 000 scale) of the study area (core and buffer zone) showing the location of various sampling stations superimposed with location of habitats, other industries/mines, polluting sources, should be provided. The number and location of the sampling stations in both core and buffer zones should be selected on the basis of size of lease/project area, the proposed impacts in the downwind (air)/downstream (surface water)/groundwater regime (based on flow). One station should be in the upwind/upstream/non-impact/non-polluting area as a control station. The monitoring should be as per CPCB guidelines and parameters for water testing for both ground water and surface water as per ISI standards and CPCB classification wherever applicable. Observed values should be provided along with the specified standards.

(xiv) Impact of mining and water abstraction from the mine on the hydrogeology and groundwater regime within the core zone and 10 km buffer zone including long-term monitoring measures should be provided. Details of rainwater harvesting and measures for recharge of groundwater should be reflected in case there is a declining

trend of groundwater availability and/or if the area falls within dark/grey zone.

(xv) Study on subsidence including modeling for prediction, mitigation/prevention of subsidence, continuous monitoring measures, and safety issues should be carried out.

(xvi) Detailed water balance should be provided. The break up of water requirement as per different activities in the mining operations, including use of water for sand stowing should be given separately. Source of water for use in mine, sanction of the Competent Authority in the State Govt. and impacts vis-à-vis the competing users should be provided.

(xvii) Impact of choice of mining method, technology, selected use of machinery and impact on air quality, mineral transportation, coal handling & storage/stockyard, etc, Impact of blasting, noise and vibrations should be provided.

(xviii) Impacts of mineral transportation within the mining area and outside the lease/project along with flow-chart indicating the specific areas generating fugitive emissions should be provided. Impacts of transportation, handling, transfer of mineral and waste on air quality, generation of effluents from workshop etc, management plan for maintenance of HEMM and other machinery/equipment should be given. Details of various facilities such as rest areas and canteen for workers and effluents/pollution load emanating from these activities should also be provided.

(xix) Effort be made to reduce/eliminate road transport of coal inside and outside mine and for mechanized loading of coal through CHP/ Silo into wagons and trucks/tippers.

(xx) Details of various facilities to be provided to the workers in terms of parking, rest areas and canteen, and effluents/pollution load resulting from these activities should also be given.

(xxi) The number and efficiency of mobile/static water sprinkling system along the main mineral transportation road inside the mine, approach roads to the mine/stockyard/siding, and also the frequency of their use in impacting air quality should be provided.

(xxii) Impacts of CHP, if any on air and water quality should be given. A flow chart showing water balance along with the details of zero discharge should be provided.

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

(xxiv) Greenbelt development should be undertaken particularly around the transport route and CHP. Baseline data on the health of the population in the impact zone and measures for occupational health and safety of the personnel and manpower for the mine should be submitted.

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

(xxvi) Details of R&R. Detailed project specific R&R Plan with data on the existing socio-economic status of the population (including tribals, SC/ST, BPL families) found in the study area and broad plan for resettlement of the displaced population, site for the resettlement colony, alternate livelihood concerns/employment for the displaced people, civic and housing amenities being offered, etc and costs along with the schedule of the implementation of the R&R Plan should be given.

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

(xxviii) Corporate Environment Responsibility:

a) The Company must have a well laid down Environment Policy approved by the Board of Directors.

b) The Environment Policy must prescribe for standard operating

process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.

c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.

d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.

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

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

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

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

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

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

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

ANNEXURE-4

GENERIC TORs FOR AN OPENCAST-CUM-UNDERGROUND COALMINE PROJECT

(i) An EIA-EMP Report would be prepared for a combined peak capacity of .....MTPA for OC-cum-UG project which consists of .... MTPA in an ML/project area of ..... ha for OC and .... MTPA for UG in an ML/project area of ..... ha based on the generic structure specified in Appendix III of the EIA Notification 2006.

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

(iii) The ToRs prescribed for both opencast and underground mining are applicable for opencast – cum-underground mining.

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ANNEXURE-5

Subject: **Re: Final Minutes of Meeting of EAC held on 24-25th April, 2019**
To: Munna Kumar Shah <munna.shah@gov.in>

Date: 05/08/19 12:42 PM
From: navin chandra <navinchandramf@yahoo.com>
Reply-To: navin chandra <navinchandramf@yahoo.com>

08/05/2019,

Dear Dr. Srivastava Ji,

I have gone through the Minutes of the Meeting after addressing concerns of Dr. Pandey. The Minutes are in order and can be now up-loaded on the Web-site of MoEFCC.
Regards,

(NAVIN CHANDRA)

Dr. Navin Chandra,
Chairman, Coal Mining & Thermal Power,
MoEF&CC, GOI, New Delhi.
Ex-Director General MPCST, Bhopal,
Ex-Vice Chancellor, SSSUTM, Sehore (MP)
(Retd.) Director (Actg.), CSIR-AMPRI, Bhopal
Member, RC, CSIR-AMPRI, Bhopal.
Phone (Res.) 91-755-2454600
navinchandramf@yahoo.com, navinchandraampri@gmail.com

On Wednesday, 8 May, 2019, 10:30:04 am IST, Munna Kumar Shah <munna.shah@gov.in> wrote:

Dear sir

The undersigned is directed to send Final Minutes of Meeting of EAC held on 24-25 April, 2019. So far we have only received comments from Shri Dr J K Pandey, and has confirmed that Draft MoM are in order.

Request you kind approval for uploading/release of the Final Minutes.

Final Minutes are enclosed for approval please.

Thank you

Regards

Munna Kumar Shah
Scientist D
MoEFCC (IA Division - Coal Mining)

494593/2021/IA_I

ANNEXURE-6

PARTICIPANTS IN 44th EXPERT APPRAISAL COMMITTEE (EAC) (THERMAL & COAL MINING) MEETING HELD ON 24th and 25th April, 2019 ON COAL SECTOR PROJECTS.

Sl. No.	List of Participants Expert Appraisal Committee (Coal Mining)		Signature
1.	Dr. Navin Chandra	Chairman	
2.	Dr. N. P. Shukla	Member	24.04.19
3.	Dr. Jai Krishna Pandey	Member	24/4/19
4.	Dr. Sharachchandra Lele	Member	
5.	Dr. G.P.Kundargi	Member	24/4/19
6.	Sh. N.S. Mondal	Member	24/4/19
7.	Dr. R.K.Giri	Member	24/4/19
8.	Dr. Manjari Srivastava	Member	
9.	Dr S.K.Paliwal	Member	
10.	Dr. S.K.Gupta	Member	
11.	Shri N. Mohan Karnat	Member	
12.	Sh. S.D.Vora	Member	24/4/19
13.	Shri S. K. Shrivastva	Member Secretary	

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List of Expert Appraisal Committee(EAC) Members

PARTICIPANTS IN 44th EXPERT APPRAISAL COMMITTEE (EAC) (THERMAL & COAL MINING) MEETING HELD ON 24th and 25th April, 2019 ON COAL SECTOR PROJECTS.

Sl. No.	List of Participants Expert Appraisal Committee (Coal Mining)		Signature
1.	Dr. Navin Chandra	Chairman	Navinchandra
2.	Dr. N. P. Shukla	Member	25.04.19
3.	Dr. Jai Krishna Pandey	Member	
4.	Dr. Sharachchandra Lele	Member	
5.	Dr. G.P.Kundargi	Member	25/4/19
6.	Sh. N.S. Mondal	Member	25/4/19
7.	Dr. R.K.Giri	Member	R.K. Giri 25/4/19
8.	Dr. Manjari Srivastava	Member	25.4.19
9.	Dr S.K.Paliwal	Member	
10.	Dr. S.K.Gupta	Member	
11.	Shri N. Mohan Karnat	Member	
12.	Sh. S.D.Vora	Member	25/4/19
13.	Shri S. K. Shrivastva	Member Secretary	

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

SUMMARY RECORD OF 52nd MEETING OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF COAL MINING PROJECTS CONSTITUTED UNDER THE EIA NOTIFICATION, 2006, HELD ON 24th JANUARY, 2020.

The 52nd meeting of the Expert Appraisal Committee (EAC) for Coal mining projects was held on 24th January, 2020 in the Ministry of Environment, Forest and Climate Change at Teesta Meeting Hall, Vayu Wing, First Floor, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi to consider the proposals relating to coal mining sector. The following members were present:

1.	Dr. Navin Chandra	-	Chairman
2.	Dr. N. P. Shukla	-	Member
3.	Shri. S. D. Vora	-	Member
4.	Shri N. Mohan Karnat	-	Member
5.	Dr. J.K. Pandey	-	Member
6.	Dr. S.K Gupta	-	Member
7.	Dr. R K. Giri	-	Member
8.	Dr. R.B. Lal, Scientist 'E', MoEFCC	-	Member Secretary
MoEF&CC			
9.	Shri Munna Kumar Shah, Scientist 'D'	-	MoEFCC

Confirmation of Minutes of 51st meeting of EAC

There being no comments from any of the members of the Committee, minutes of the 51st meeting of the EAC held on during 5th December, 2019 were confirmed in the presence of the members who had been present in the 51st meeting of EAC.

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

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

Agenda No. 52.1

Basundhara (West) Extension OCP of 8.75 MTPA by M/s Mahanadi Coalfields Limited in a mine lease area of 323.92 ha (Total Project Area of 369.77 ha) located in village(s) Gopalpur (Part) and Ratansara in Tehsil Hemgir, District Sundergarh, Odisha – For Environmental Clearance – reg.

[Proposal No. IA/OR/CMIN/63468/2017; F.No. J-11015/26/2017-IA-II(M)]

52.1.1 The proposal is for environmental clearance for Basundhara (West) Extension Opencast Project of 8.75 MTPA capacity of M/s Mahanadi Coalfields Limited in mine lease area of 323.92 ha (Total Project Area of 369.77 Ha) located in village(s) Gopalpur (Telendih) and Ratansara in Tehsil Hemgir, District Sundergarh, Odisha.

52.1.2 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 area is covered under Survey of India Topo Sheet No 64 N/12 and is bounded by the geographical coordinates ranging from latitude 22°03'38.33" N to 22°04'40.65" N and longitudes 83°40'17.78" E to 83°42'22.16" E

(ii) Joint Venture: There no Joint Venture

(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) Coal Linkage: Thermal Power Plant & Basket Linkage

(v) Employment generated I to be generated: Approximately 854 nos. of direct employment will be generated

(vi) Benefits of the project:

a. Improvement in Physical Infrastructure

b. Improvement in Social Infrastructure

c. Increase in employment potential

d. Contribution to the Exchequer (both State and Central Govt.)

e. Post mining enhancement of Green Cover

f. Improvement of Electrical Power Generation & availability of electricity for 24x7 in rural areas

g. Overall economic growth of the country.

(vii) The land usage of the project will be as follows:

(i) Pre-Mining:

SI. No.	Type of Land	Within ML area (ha)	Outside ML area (ha)	Total area (ha)
1	Agricultural/Tenancy	51.29	--	51.29
2	Waste land / Govt.land	45.01	45.85	90.86
3	Forest Land	227.62	--	227.62
4	Grazing	--	--	--
5	Surface water bodies	--	--	--
Total:		323.92	45.85	369.77

Sl.No.	Particulars	Forest	Non-Forest	Total
1	Excavation Area	207.30	92.57	299.87
2	Safety Zone	2.75	3.73	6.48
3	Infrastructure	17.57	--	17.57
4	External OB dumps	--	--	--
5	Mine Lease Area	227.62	96.30	323.92
6	Rehabilitation site	--	45.85	45.85
7	Outside lease area	--	45.85	45.85
	Total	227.62	142.15	369.77

(ii) Post-closure land use (Core zone)

SI. No	Land Use during Mining	Land Use (Ha)				
		Plantation	Water Body	Public Use	Undisturbed/ Dip side slope	Total (ha)
1	External OB Dump	Nil				
2	Top Soil Dump	Will be spread concurrently in the backfilled area				
3	Excavation	168.35	130.64	--	0.88	299.87
4	Built up area	17.57		--	--	17.57
5	Green Belt	6.48	--	--	--	6.48
	Mine lease Area	192.40	130.64	--	0.88	323.92
Note: Apart from above 9.17 Ha Plantation will be done at R&R site outside the lease area.						

(viii) Total geological reserve is 101.06 MT. The mineable reserve 92.73 MT, extractable reserve is 92.73 MT with per cent of extraction as 91.75%.

(ix) The coal grade is average G12 to G13. The stripping ratio is 1.05 cum/tonne. The average gradient is 3^{o} to 8^{o}. 6 seams with thickness ranging from 1.0 m – 15.0 m are workable.

(x) Total estimated water requirement is 2010 m3/day. The level of ground water ranges from 2.56 mbgl to 6.27 mbgl.

(xi) The method of mining would be Opencast by Shovel - Dumper/ Ripper-dozer in OB/ parting; Surface miner, pay loader & tipper in coal.

(xii) There is no external OB dump and two internal dumps with Quantity of 97.22 Mcum in an area of 334.99 ha. To avoid external dumping, 7.66 MM^3 of OB generated during initial three years will be dumped on the partially filled voids of adjoining Basundhara (West) Expansion OCP.

(xiii) The final mine void would be in 130.64 ha with depth varying from 30 m to 56 m and the total quarry area is 299.87 ha. Backfilled quarry area of 168.35 ha shall be reclaimed with plantation. A void of 130.64 ha with depth 30 m which is proposed to be converted into a water body

(xiv) Baseline Data Generation: The seasonal data for ambient air quality has been documented for a period of 04-11-2017 to 03-02-2018 and all results at all stations are within prescribed limits

(xv) The life of mine is 12 Years

(xvi) Transportation: The entire coal production of 8.75 MTPA will be by Surface Miner. The coal will be dispatched from coal face to railway siding at Sardega by coal trucks. The coal will be dispatched through the RLS at Sardega siding to different thermal power stations.

(xvii) There is R & R involved. There are 222 PAFs.

(xviii) Cost: Total capital cost of the project is Rs. 755.13 Crores. CSR Cost - 2% of the average net profit of the company for the three immediately preceding financial years or Rs. 2.00 per tonne of coal production of the previous year whichever is higher. R&R Cost Rs. 71.43 Crores. Environmental Management Cost – Rs. 21.95 Crores

(xix) Water body : Basundhara River flows adjacent in East direction, Telendra Nalla flows at a distance of 94 m in south direction, Barhajharia Nalla flows at a distance of 230 m in west direction, Bhaina Jhor flows at a distance of 3.4 km in North East, lchcha Nadi flows at a distance of 8.65 km in North East direction, Albahal jhor flows at a distance of 6.64 km in south West direction.

(xx) Applications for obtaining the approval of the Central Ground Water Authority has been submitted vide application no. 21-4/2296/OR/MIN/2019 dt: 09-08-2019.

(xxi) Approvals: Mining Plan was approved by MCL Board in its meeting held on 28.02.2017 & by MoC vide letter no. 34012/4/2011-CPAM dt: 22-03-2017.

(xxii) Wildlife issues: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10km buffer zone. There are no Schedule-1 species found.

(xxiii) Forestry issues: The total forest area involved in the project is 227.62 ha. Online application for forest clearance has been submitted on 22nd July, 2016 vide ref. no. FP/OR/MIN/20559/2016.

(xxiv) Total afforestation plan shall be implemented covering an area of 201.57 ha at the end of mining. Green Belt over an area of 6.48 ha. Density of tree plantation 2500 trees/ ha of plants.

(xxv) There are no court cases/violation pending against the project proponent. However, the R&R of some villages falling in this project area are being carried out under the direction of "Claims Commission" appointed by Hon'ble Supreme Court of India.

(xxvi) Public hearing for the project of 8.75 MTPA capacity in an ML area of 323.92 ha was conducted on 14.02.2019 at 10.30 Am at Stadium field near Jagannath Mandir, Tilklipada village, Himgir Block of Sundergarh District. Major issues raised in the public hearing include (1) Land Acquisition, Payment of compensation and R&R (2) Employment to locals (3) Air Pollution. (4) Water Pollution Appropriate action to address the issues raised in the Public Hearing is proposed to be taken up.

52.1.3 During deliberations on the proposal, the Committee noted the following: -

The proposal is for environmental clearance for Basundhara (West) Extension Opencast Project of 8.75 MTPA capacity of M/s Mahanadi Coalfields Limited in mine lease area of 323.92 ha (Total Project Area of 369.77 Ha) located in village(s) Gopalpur (Telendih) and Ratansara in Tehsil Hemgir, District Sundergarh (Odisha).

ToR was granted by Ministry on 2nd Feb, 2018. Public hearing for the project of 8.75 MTPA capacity in an ML area of 323.92 ha was conducted on 14.02.2019 at Stadium field near Jagannath Mandir, Tilklipada village, Himgir Block of Sundargarh District. Project involves forest land of 227.62 ha for diversion for non-forestry activity. Stage-1 FC for the forest land has not yet been granted by the Ministry.

Baseline data collection was conducted during winter season i.e. 04-11-2017 to 03-02-2018. Mine Plan including Mine Closure Plan for production capacity of 8.75 MTPA in an ML area of 323.92 ha has been approved by Ministry of Coal dated 22nd March 2017.

52.1.4 The EAC, after deliberation observed that there are various deficiencies in the proposal found in submission of project proponent and even the basic Form#2 on parivesh portal is not being filled properly. **EAC categorically noted that PP's and consultants (M/s CMPDI) are wasting the time by submitting immature proposals to the Committee. The content in the EIA Report are incorrect such as value of TDS, BOD, COD and fluoride content in surface water. There are various incorrect details filled in Form#2 and need to be corrected.**

The Committee also took serious note on the quality of the EIA/EMP report prepared by the consultant (M/s CMPDI) and underrated the consultant. The Committee desired that the Ministry/QCI shall take action as appropriate on the matter against the consultant for wrong and inconsistent information the EIA/EMP and presentation. The EAC, after detailed deliberations **decided to return the proposal in its present form** and have asked for clarification/inputs, in respect of the following:-

(i). Brief Compliance of each ToR conditions and further referencing for details of compliance shall be provided correctly.

(ii). Form#2 on Parivesh should be filled with all details and correct information.

(iii). Stage-I FC for forest land of 227.62 ha for diversion of non-forestry activity shall be submitted.

(iv). Carrying capacity of the region shall be carried out considering the presence of the other coal mines and mitigation measures shall be proposed accordingly from recognised institutes.

(v). Values of PM10 are reported to be high. PP shall be present mitigation measures to reduce PM10 in details.

(vi). River Conservation Plan along with fund and timeline shall be prepared to protect pollution of Basundhara River.

(vii). Ground Water Recharge Estimation of buffer zone shall be done as per guidelines of GEC 2015 instead of 1997 guidelines.

(viii). Air Quality modelling of pollutant NOx is shall be submitted vis-à-vis its impacts/mitigation measures.

(ix). Clarification and confirmation from District Forest Officer that no presence of Tiger/or any wildlife corridor were found in the said area of coal mine/forest area considering Sanjay National Park.

(x). List of species of flora and fauna shall be vetted by DFO after conducting primary survey of buffer zone.

(xi). EIA report shall include details of Project displaced families or Project displaced person. Detailed Break up of activities of R&R and CSR shall also be included.

(xii). Impact and Mitigation measures of transportation of coal by road from coal mine to desired destination (linked railway siding or linked Power Plant) shall be included in EIA Report.

(xiii). Permission of extraction of ground water intersection/extraction from Central Ground Water Authority shall be taken.

(xiv). Details of hazardous waste generation (if any) during mining operations and further handling/disposal shall be provided in details.

(xv). Impact on villages due to mining activity present in core zone or in buffer zone (not proposed to be displaced) shall be provided.

(xvi). Proposed plan for development of green belt shall be provided with fund allocated and year wise plantation plan

(xvii). Management of Top Soil shall be provided as per best environmental procedure and provision of storage of top soil in mine plan shall be produced.

(xviii). The activities and fund provisions for CER shall be made as per the guidelines issued by the ministry regarding CER on 1st May, 2018.

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

The Committee recommended to visit the project by a sub-committee of EAC members namely Dr. S. D. Vora, Dr. N. P. Shukla, Dr. J.K. Pandey, and. The representative from the MoEFCC may also assist the Sub-Committee.

Agenda No. 52.2

One Time Expansion of Marki Mangli-I Coal Mine from 0.30 MTPA to 0.333 MTPA (Normative) / 0.42 MTPA (Peak Capacity) with change in Lease hold area from 731.42 ha to 694.20 ha of M/s Topworth Urja and Metals Ltd in village Pardi, Pandharkawda (Lahan), Marki (Bu), Marki (Kh) & Ganeshpur (Kh), Tehsil Zari Zamni, District Yavatmal, Maharashtra- Environmental clearance under the provision of clause 7(ii) of EIA Notification, 2006

[Proposal No. IA/MH/CMIN/96726/2005; F. No. J-11015/256/2006-IA. II (M)]

52.2.1 The proposal is for environmental clearance for Marki Mangli-I Coal Mine Project of 0.333 MTPA(Normative)/0.42 MTPA (Peak) capacity in mine lease area of 694.20 ha of M/s Topworth Urja and Metals Ltd. located in village Pardi, Pandharkawda

(Lahan), Marki (Bu), Marki (Kh) & Ganeshpur (Kh), Tehsil Zari Zamni, District Yavatmal (Maharashtra), under the provision of clause 7(ii) of EIA Notification, 2006.

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

(i) The project area is covered under Survey of India Topo Sheet No 56I/13 and is bounded by the geographical coordinates ranging from 19.84101 to 19.86539 N and longitudes 78.76265 N and 78.80951 E.

(ii) Coal linkage of the project is proposed for Captive use for various end use plant of Topworth Urja and Metals Ltd at mauza Ukkarwahi Tq. Umred Dist Nagpur.

(iii) No Joint venture cartel has been formed. Marki Mangli-I Coal Mine is solely vested to M/s Topworth Urja and Metals Ltd.

(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, Out of 994 employment, 261 persons for opencast Mine and 733 persons for underground Mine will be provided from the project.

(vi) The project is reported to be beneficial in terms of employment generation, socioeconomic upliftment through project's CSR, CER funds and through contribution to District Mineral Foundation, development of green belt

(vii) Earlier, the environment clearance to the project was obtained under EIA Notification, 2006 vide Ministry's letter No J-11015/256/2006-IA.II(M) dated17.05.2007 and transferred dated 9.2.2016.for 0.30 MTPA in mine lease area of 731.42ha.

(viii) Life of the Mine is 30 years as per EC dated 17th May, 2007. Balance life of mine is 17 years.

(ix) Total mining lease area as per block allotment is 731.42 ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved by Ministry of Coal, Govt. of India vide letter No. 34011/30/2017-CPAM on 5.10.2018.

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

Pre-mining land use details

(Area in Ha)

S. No.	Land Use	Within ML Area	Outside ML Area	Total
1	Agricultural Land	639.252	00	639.252
2	Forest Land	00	00	00
3	Wasteland	12.95	00	12.95
4	Grazing Land	00	00	00
5	Surface Water Bodies	00	00	00
6	Settlements	00	00	00
7	Others (Specify)			
	Area under Pit	13.30	00	13.30
	Area under OB Dump	0.840	7.8	8.4
	Area under Soil Dump	2.37	00	2.37

	Area under infrastructure and built up	0.00	1.87	1.87
	Area under Haul Road	1.82	00	1.82
	Area under Plantation	4.00	00	4.00
	Area under Nalla Diversion and Drains	10.00	00	10.00
	Total Project Area =	684.532	9.67	694.202

Post Mining

S. No.	Land use	Land use (ha)				
		Plantation	Water Body	Public Use	Undisturbed	Total
1	External OB Dump	28	00	00	00	28
2	Top Soil Dump	12	00	00	00	12
3	Excavation	81.96	15.24	00	00	97.2
4	Roads	9.70	00	8.42	00	18.12
5	Built-up Area		00	00	00	
6	Green Belt	1.96	00	00	00	1.96
7	Undisturbed Area	5.00	00	00	501.92	506.92
8	Safety Zone / Rationalization Area	20	00	10	00	30
9	Diversion / Below River / Nala / Canal	00	00	00	00	
10	Water Body	00	00	00	00	
11	Staff Colony	00	00	00	00	
	Total Area =	158.62	15.24	18.42	501.92	694.20

(xi) Total geological reserve reported in the mine lease area is 24.26 MT with 21.17MT mineable reserve. Out of total mineable reserve of 21.17MT, 10.49 MT are available for extraction. Percent of extraction is 49.55%

(xii) 01 seams with thickness ranging from 2.4 m 3.881 m are workable. Grade of coal is G-12, stripping ratio 1:6.43, while gradient is 1 in 8 to 1 in 13.

(xiii) Method of mining operations envisages by (Mixed) Opencast and Underground methods

(xiv) The project has 01 external OB dumps in an area of 28 ha with 25 m height and 5.98 Mm^3 of OB. Existing OB Dumps shall be re-handled and backfilled in 10th, year onwards. The OB from the current mining operations shall be backfilled from 5^{th} year onwards. 03 internal OB in an area of 12ha with 12.27Mm^3 of OB is envisaged in the project.

(xv) Total quarry area is 97.20 ha out of which backfilling will be done in 81.96ha while final mine void will be created in an area of 15.24 ha with a depth of 18 m. Backfilled quarry area of 81.96 ha shall be reclaimed with plantation. Final mine void will be converted 15.24

(xvi) Transportation of coal has been proposed by Dumpers in mine pit head, from surface to end use plant by trucks only.

(xvii) Reclamation Plan in an area of 158.62 ha, comprising of 28 ha of external dump, 12 ha of Top soil dump and 1.96 ha of green belt. In addition to this, an area of 30 ha, included in the safety zone/rationalization area, has also been proposed for green belt development.

(xviii) No National Park, Wild Life Sanctuaries and Eco- Sensitive Zones have been reported within 10 KM boundary of the project.

(xix) The ground water level has been reported to be varying between 18.66m to 5.80 m during pre-monsoon and between 2.30 m to 8.50 m during post-monsoon. Total water requirement for the project is 839 KLD.

(xx) Application for obtaining the approval of the Central Ground Water Authority for Renewal has been submitted on 02nd February, 2019.

(xxi) Public hearing for the project of 0.30 MTPA capacity in an area of 731.42ha was conducted on 1st January 2003 & 2nd December 2003 at Raj Rajeshwar Temple premises, Mukutban, Tahsil – JahriJamni, Dist - Yavatmal at 11.00 am. Major issues raised in the public hearing include Ground Water Depletion and land acquisition Appropriate action to address the issues raised in the Public Hearing have already been taken.

(xxii) Consent to Operate for the existing capacity was obtained from the State PCB vide BO/JD(APC)/UAN No. 4115 /R/CC-1267 Dt.23.02.2017 and is valid till 31.03.2021

(xxiii) Upasa nalla is flowing along South East boundary of lease. The nallah will be diverted in consultation with the Water Resource Department of the State Government.

(xxiv) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to State Pollution Control Board, Regional Office Chandrapur 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.

(xxv) No court cases, violation cases are pending against the project of the PP

(xxvi) The project does not involve violation of the EIA Notification, 2006 and amendment issued thereunder. The coal production from the mine was started from the year 19.04.2017 onwards. No excess production of coal from the sanctioned capacity has been realized since the commencement of mining operations. The coal production, realized from the project, from 1993-94 onwards, is as under:

(xxvii) The project involves 180 project affected families (Land Losers). R&R of the PAPs will be done as per in provisions of the Right to Fair Compensation & Transparency in Land Acquisition, Rehabilitation and Resettlement Act,2013

(xxviii) Total cost of the project is Rs. 10000 lakhs. Cost of production is Rs. 2250/tonne., CSR cost is Rs. 5 per tonne, R&R cost is Rs. 75 crores. Environment Management Cost is Rs. 258 Lakhs as capital cost and 24.50 lakhs as recurring cost.

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Further PP submitted the Compliance to Office Memorandum J11015/224/2015.-Ia.II dated 15.09.2017 :

Sr. No.	Requirements of Office Memorandum	Compliance
1	Prediction of air quality parameters are within the prescribed norms	Air quality parameters are within prescribed limits of Industry Specific limits and NAAQ standards 2009
2	Coal transportation is through conveyor system up to silo and then landing to railway wagons, involving no transportation through roads.	Not applicable as end use plant is at 190 Km from the Marki Mangli-I Coal Mine and railway siding is at 24 Kms from the mine site.
3	Coal mining is done through deployment of surface miners, replacing three dust generating operations of the conventional mining system namely drilling,blasting,crushing in one go.	Not Applicable as the annual production capacity is very low and unfavorable mining conditions for use of surface miners.
4	Public hearing already carried conducted for the total mine lease area involved and no more area is required for proposed expansion.	Yes, complied.
5	Compliance status of EC conditions monitored by the concerned Regional Office of this Ministry is found to be satisfactory.	Yes, complied.
6	Other statutory requirements like consent to establish/Operate, Clearance from CGWA, approval of Mining Plan and the Mine Closure Plan, Mine Closure Status Report as applicable, Forest Clearance etc are satisfactorily fulfilled.	1. Consent to establish : Obtained
		2. Consent to Operate : Obtained and valid till 31.03.2021
		3. CGWA Clearance: Obtained, applied before the expiry of validity to CGWA for renewal and renewal is under process. Renewal application with CGWA clearance is enclosed
		4. Mining Plan and Mine Closure Plan is approved on 05.10.2018
		5. Mine Closure Status Report : Progressive Mine closure will be started from December 2020 as per approved closure plan.
		Forest Clearance : Not Applicable.
7	The proposed expansion can go up to a maximum 40 % of capacity wherein the last public hearing was conducted.	Proposed Expansion is @ 11 %. The Proposal is for one time expansion of Marki Mangli - I Coal Mine from 0.30 MTPA to 0.333 MTPA (Normative)/ 0.42 MTPA (Peak Capacity) without change in Leasehold area, Mining Method

8	There is no increase in area of the proposed expansion vis-à-vis the mine area in EC, wherein last public hearing was conducted.	The Proposal is for one time expansion of Marki Mangli-I coal mine from 0.30MTPA to 0.333 PA(Normative)/ 0.42 MTPA(Peak Capacity) without change in Leasehold area, Mining Method.
9	Coal transportation is through conveyor system up to the silo and loading to the railway wagons, and not by road.	Not applicable as end use plant is at 190 Km from the Marki Mangli-I Coal Mine and railway siding is at 24 Kms from the mine site.

Project proponent has also submitted Plantation Program: Practice of green belt development will be continued throughout the mining operations. Till date inventory of 2425 trees is developed as specified in Section 4.5 of addendum EIA- EMP report.

Green belt development plan for mine lease area is scheduled for next 10 years as below

Sr. No.	Year from 2019 onwards	No. of Saplings
1	2019	100000
2	2020	100000
3	2021	100000
4	2022	100000
5	2023	100000
6	2024	100000
7	2025	100000
8	2026	100000
9	2027	100000
10	2028	100000
	Total	1000000

Location of saplings to be planted as below :

Sr. No.	Location for plantation	Area in Ha	No. of Saplings
1	Around OB dumps	40.00	25,000
2	Backfilling Area	75.88	1,15,000
3	Along Haul Roads	10.82	15,000
4	Other Areas within Mine Lease	10.00	20,000
5	Along State Highway for Marki Mangli-I Coal Mine	Stretch of 10 Kms on both side @ 1 sapling per 3 meter in two rows	30,000

6	Along approach road Marki Mangli-I Coal Mine	Stretch of 1.5 Km on both side @ 1 sapling per 3 meter in two rows	6,000
7	Area of 158 ha specified for plantation	2500 Saplings /ha	3,95,000
8	Undisturbed Area considered for UG Operations	----	4,00,000
		Total	**10,06,000**

52.2.3 The EAC during deliberation noted the following: -

The proposal is for environmental clearance for Marki Mangli-I Coal Mine Project of 0.333 MTPA(Normative)/0.42 MTPA(Peak) capacity in mine lease area of 694.20 ha of M/s Topworth Urja and Metals Ltd. located in village Pardi, Pandharkawda (Lahan), Marki (Bu), Marki (Kh) & Ganeshpur (Kh), Tehsil Zari Zamni, District Yavatmal (Maharashtra), under the provision of clause 7(ii) of EIA Notification, 2006.

The Environment clearance was obtained under EIA Notification, 2006 vide Ministry's letter dated 17th May, 2007 to M/s B.S. Ispat Ltd. Further EC was transferred to M/s Topworth Urja & Metals Limited on 9th February, 2016 for 0.30 MTPA in mine lease area of 731.42 ha.

The Ministry of Coal vide Vesting Order under Clause (b) of sub-rule (2) of rule (7) and sub rule(1) of rule 13 and order No. 104/32/2015/NA dated 30th September, 2015 has allocated the Marki Mangli- I Coal Mine Project of 0.30 MTPA in an area of 731.42 ha to M/s Topworth Urja & Metals Limited.

Upasa nalla is flowing along South East boundary of lease. The nallah will be diverted in consultation with the Water Resource Department of the State Government.

Project proponent has submitted the Compliance of the Ministry's Office Memorandum J-11015/224/2015.-IA.II dated 15.09.2017 for exemption of public hearing of proposed expansion in capacity. The Committee deliberated the compliance stratus.

There is no forest land involved in the project area. PP committed to plant 1 lakh trees in next 10 years and submitted the undertaking for the same.

Total mining lease area as per block allotment is 731.42 ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved by Ministry of Coal, Govt. of India vide letter No. 34011/30/2017-CPAM on 5.10.2018.

PP submitted essential details dated 1st June, 2019 regarding clarification about the land area and reason of decrease in mine lease area.

Compliance of EC conditions are certified by Regional Office, Nagpur vide its Letter No. EC-286/RON/20147-NGP/2245 on 9th August, 2017. The Committee deliberated the compliance stratus.

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

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

52.2.4 The EAC, after detailed deliberation, **recommended** the proposal for grant of environmental clearance to Marki Mangli-I Coal Mine Project of 0.333 MTPA (Normative)/0.42 MTPA(Peak) capacity in mine lease area of 694.20 ha of M/s Topworth Urja and Metals Ltd. located in village Pardi, Pandharkawda (Lahan), Marki (Bu), Marki (Kh) & Ganeshpur (Kh), Tehsil Zari Zamni, District Yavatmal (Maharashtra), under the provision of clause 7(ii) of EIA Notification, 2006 and under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the following terms & conditions / specific conditions:-

(i). Validity of EC is life of the mine or 30 years whichever is earlier as per EIA Notification, 2006

(ii). The project proponent shall obtain Consent to establish from the State Pollution Control Boards for the proposed peak capacity of 0.333 MTPA(Normative)/0.42 MTPA(Peak) prior to commencement of the increased production.

(iii). Transportation of coal from Coal Handling Plant shall be through covered trucks.

(iv). To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers.

(v). Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at loading and unloading points, etc.

(vi). Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.

(vii). Persons of nearby villages shall be given training on livelihood and skill development to make them employable.

(viii). Thick green belt of adequate width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check the dust pollution.

(ix). Efforts shall be made for utilizing alternate sources of surface water, abandoned mines or else whatsoever and thus minimizing the dependability on a single source.

(x). The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 0.333 MTPA(Normative)/0.42 MTPA(Peak).

(xi). Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.

(xii). A third party assessment of EC compliance shall be undertaken once in three years through agency like ICFRI /NEERI/IIT or any other expert agency identified by the Ministry.

(xiii). Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles

(xiv). Permission of diversion of nallah from concerned statutory authority

(xv). Compliance of the non-compliance/partial compliance conditions certified by Regional Office, Nagpur vide its Letter No. EC-286/RON/20147-NGP/2245 on 9th August, 2017. The PP shall take all the mitigation measures and the Action taken report shall be submit the Regional Office of the MoEFCC.

(xvi). Project proponent to plant 100,000 nos. of native trees with broad leaves along the villages and transportation route to prevent the effect of air pollution. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer.

(xvii). The activities and fund provisions for CER shall be made as per the guidelines issued by the ministry regarding CER on 1st May, 2018.

(xviii). Project Proponent shall obtain blasting permission from DGMS for conducting mining operation near villages and also explore deployment of rock breakers of suitable capacity in the project to avoid blasting very near to villages. There shall be no damages caused to habitation/structures due to blasting activity.

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

(xx). Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table. The intersecting ground water table can only be commence after conducting detailed hydrogeological study and necessary permission from the CGWA. The Report on six monthly basis on changes in Ground water level and quality shall be

submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.

(xxi). Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of antisnake venom including all other paramedical safeguards may be ensured before initiating the mining activities.

(xxii). Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".

(xxiii). The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.

(xxiv). The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.

(xxv). 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.52.3

Batura Opencast Coal mining Project with production capacity of 2.00 MTPA Normative and 3.00 MTPA Peak, Project Area 967.473 ha of M/s South Eastern

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Coalfields, located in District Shahdol and Anuppur, Madhya Pradesh – For Re-Consideration of Environmental Clearance

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

52.3.1 The proposal is for grant of Environmental Clearance to Batura Opencast Project 2 MTPA Normative & 3 MTPA Peak in ML area of 967.473 ha of M/s South Eastern Coalfields Limited in District Shahdol and Anuppur (Madhya Pradesh).

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

(i). Base line air quality data more than three years old and thus not in conformity with the extant norms/guidelines in this regard.

(ii). Air quality for PM_{10} (98^{th} percentile values) already on much higher side at many of the locations, would not allow more mining operations without adequate mitigating measures.

(iii). Diversion plan for Katna Nallah requires approval of the concerned regulatory authority (Water Resources/Irrigation Department).

(iv). Mine Plan for the project duly approved by the competent authority.

(v). R&R Plan for the project affected families.

(vi). Diversion of 24.6 ha of forest land for non-forestry purposes.

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

S. No.	Observations	Comments/Compliance
1	Base line air quality data more than three years old and thus not in conformity with the extant norms/guidelines in this regard	The baseline air quality data is generated for April to June, 2019
2	Air quality for PM_{10} (98^{th} percentile values) already on much higher side at many of the locations, would not allow more mining operations without adequate mitigating measures.	The baseline air quality data is generated for April, to June, 2019 and values are well within limit. Previously, values were higher due to road construction activities on the Nearby National Highway
3	Diversion Plan for Katna Nallah requires approval of the concerned regulatory authority (Water Resources/Irrigation department)	Water Resource Division, Shahdol issued permission for diversion of Katna Nala vide his letter no 1317 dated 23.08.17
4	Mine Plan for the project duly approved by the competent authority.	The mine plan for the project has been approved by the SECL Board on 16.09.2008.

5	R&R Plan for the project affected families	In this project total Tenancy Land notified is around 709 ha and thus 875 direct employments are to be provided. Total PAFs are 1870. The R&R for the project affected families is proposed to be done under the CIL R&R Policy 2012. R&R cost accumulates to Rupees 29.29 Crores.
6	Diversion of 24.60 ha of forest land for non-forestry purposes.	Forest land is diverted to the extent of bare minimum requirement, though as per PR, total Forest land has been indicated as 101.44 ha. The minimum requirement for working of mine is of 76.84 ha for which final stage II clearance has been obtained. Since no working is proposed in balance 24.60 ha of land falling in mining safety zone, diversion for non-forestry purpose is not required.

52.3.4 EAC deliberated the proposal again on 22nd October, 2019 and observed the following: -

Project proponent shall prepare EIA report as per Ministry's guidelines. The report should include chapter wise details such as project details, description of the baseline environment, impact assessment and environment management, action plan for points raised during public hearing which is specific to the project. The latest methodology for ground water estimation shall be done by using GEC-2015.

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

S. No.	Observations	Comments/Compliance
1	Project proponent shall prepare EIA report as per Ministry's guidelines. The report should include chapter wise details such as project details, description of the baseline environment, impact assessment and environment management, action plan for points raised during public hearing which is specific to the project.	The EIA report for the proposal has been revised accordingly and submitted with all desired details.
2	The latest methodology for ground water estimation shall be done by using GEC-2015.	Ground Water Estimation has been submitted by using GEC-2015.

52.3.6 During deliberations on the proposal, the EAC took note

The proposal is for grant of Environmental Clearance to Batura Opencast Project

2 MTPA Normative & 3 MTPA Peak in ML area of 967.473 ha of M/s South Eastern Coalfields Limited in District Shahdol and Anuppur, Madhya Pradesh.

Terms of Reference for the proposal was granted by Ministry on 21st March, 2017.

Earlier, it was submitted that Mine Plan has approved for the proposed peak capacity of 3 MTPA by the M/s SECL Board on 16th September, 2008. However, after checking the Mine Plan document, it was observed that Mine Plan for peak capacity of 3 MTPA is still not approved.

Project involves total 101.440 ha (76.84 ha in mine lease and 24.60 ha outside mine lease) of forest land for diversion of non-forestry activity. There is one water reservoir in the study area developed by MPEB.

52.3.7 The EAC, after deliberations observed that the instant proposal

The proposal was earlier considered by the sectoral EAC in its meeting held on 24th January, 2019 and October 2019, However the Committee observed that PP has not submitted the basic documents which are required for appraisal of the projects. The Committee took serious note on the quality of the EIA/EMP report prepared by the consultant and underrated the consultant. The Committee desired that the Ministry/QCI shall take action as appropriate on the matter against the consultant for wrong and inconsistent information. The Committee mentioned that due to wrong information the the appraisal of the projects delayed.

The EAC, after deliberations observed that proposal for environmental clearance has various lacunae and following points needs to be addressed by PP. **Gross mistakes are being conducted by PP/consultant that even a basic approved mine plan for Peak capacity is not being submitted**. It is astonishing that Consultant has taken surface water sample for katna nalla which is proposed for diversion and not monitored surface water quality of Son River which is 6 km away from site (in buffer zone). Form # 2 on Parivesh portal is not filled up properly and sometime PP submits in correct and incomplete details on Portal. EAC observed that consultant is not doing his work properly and warns the consultant and ask this Ministry to inform the Ministry of Coal about the concerns of EAC and further sought requisite details as under: -

(i). Project area mentioned in mine plan is 967.475 ha and it is mentioned that 24.60 ha for less forest land in safety zone not to be acquired. Grant Total area is reduced to 942.87 ha. Also in EIA Report and Presentation, project area is 967.473. PP shall explain the deviation and exact area of project.

(ii). PP shall demarcate and explain the exact area and location for storage of top soil in mine plan.

(iii). Revised Mine Plan for 3 MTPA (Peak) capacity shall be submitted by PP.

(iv). Public Hearing with action plan with issued based fund allocation including time line in separate column shall be submitted.

(v). Permission for extraction of ground water from Central Groundwater Authority shall be taken.

(vi). Explore the possibility of relocating 2000 Nos of trees instead of cutting.

(vii). R & R site is not yet decided yet. So, it is required to submit R & R Plan and report shall be submitted.

(viii). Surface water quality of upstream and downstream of Son River shall be collected and analysed.

(ix). Permission for diversion of Katna Nalla shall be taken from concerned regulatory authorities.

(x). There is a Hilllock present in the area. What is plan for this.

(xi). Justify why OB dump is being proposed at about 2.5 km distance which is likely to increase air pollution due to transportation.

(xii). Air quality modelling for PM2.5, SOx, NOx shall also be done instead of only PM10.

(xiii). Railway line is 20 km away from the site. Mode of transportation and its impact needs to be studied

(xiv). Explore inpit conveyor system for coal transportation shall be explored instead of trucks/dumpers from the start or in 1 year only.

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

Agenda No.52.4

Proposed 2x2 MTPA Coal Washery in an area of 8.195 ha of M/s CG Coal & Power Limited located at Village Batari, Tehsil Khatgora, District Korba (Chhattisgarh)- For Reconsideration of Environmental Clearance

[Proposal No. IA/CG/CMIN/25774/2014; F.No. J-11015/512/2014-IA. II (M)]

52.4.1 The proposal is for Environmental Clearance of proposed 2 x 2 MTPA Coal Washery (Wet Process) in two phases using heavy media cyclone technology in an area of 8.195 ha of M/s CG Coal & Power Limited located at Batari, Tehsil - Khatgora, District – Korba (Chhattisgarh)

52.4.2 The EAC during deliberations noted the following:-

The proposal was earlier considered by the EAC (Coal Mining Projects) in its meeting held on 21st February, 2019 wherein the Committee desired for information in respect of the following:

(i). Carrying capacity of the road for the increased traffic due to transportation of Raw/washed coal from NH to Bilaspur Pali and 400 m stretch of village road.

(ii). MoUs/agreements for linkage of washed coal to the potential consumers

(iii). Land records and actual possession of land for the proposed washery

(iv). Permission for withdrawal of ground ater from CGWB, if so required Traffic density study to be carried out and air pollution modeling due to movement of trucks

(v). Proper EMP to address the air quality concern and/or impact on nearby areas (to Kanya ashram)

(vi). Disposal of washery rejects in conformity with the extant norms/guidelines in this regard.

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

Sl.	Observation	Reply by Project Proponent
1.	Carrying capacity of the road for the increased traffic due to transportation of Raw/washed coal from NH to Bilaspur Pali and 400 m stretch of village road.	(i) The existing road width of 400m stretch is 3.5 meter. Application submitted to PWD, Korba, Chhattisgarh for obtaining design and estimate. (ii) Information with regard to design and budget is given by PWD for strengthen and widening of road for movement of 40 Ton (Max) trucks, The proposed width of road will be 14.85 M (iii) NOC is given by Gram Panchayat, Batari for construction of road (iv) The details of existing and proposed traffic load provided
2.	MoUs/agreements for linkage of washed coal to the potential consumers.	(i) Proposed coal washery is situated nearer to the pit head of the existing operational coal mines of SECL on Korba-Bilaspur-Pali Road and most of the successful bidders having FSA with SECL or procuring coal by road mode from SECL coal mines in spot e-auction, forward e-auction, exclusive e-auction, special e-auction, are transporting their coal through Korba – Bilaspur - Pali road. (ii) Further, the company is hopeful for getting requisite raw coal from the aforesaid parties for washing. Presently, some of the prospecting job providers are reluctant and afraid to execute any kind of MOU, without physical existence /establishment of coal washery. (iii) PP assures to submit copies of MOU on receipt of EC and after commissioning the proposed coal washery before commencement of operations.
3.	Land records and actual possession of land for the proposed washery	(i) The copy of lease deed dated 25th Feb 2008 for 10.25 acre of land is provided. (ii) The copy of lease deed dated 02nd June 2014 for 10.00 acre of land is provided. (iii) Possession letter for 10.25 acre of land is provided. (iv) Possession letter for 10.00 acre of land is provided (v) Khasra No of 20.25 acre of land is provided.

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Sl.	Observation	Reply by Project Proponent
4.	Permission for withdrawal of groundwater from CGWB, if so required	(i) Water requirement is 1300 KLD which will be sourced from Fulzar Anicut (Surface water). (ii) Water Allocation (Sanctioned) Letter obtained from Water Resources Department Chhattisgarh for drawl of 1300 m^3/day is provided (iii) No ground water required for the proposed coal washery. Hence CGWB permission not required.
5.	Traffic density study to be carried out and air pollution modeling due to movement of Trucks	The volume of transport due to the proposed activity and the impact on the surrounding area studied. (i) It is estimated that around 656 Trucks per day will be plying over the road. (ii) AERMOD model was used for this study (iii) The cumulative conc. levels (ambient +proposed incremental) revealed that the concentration levels for PM, NOx and CO likely to be encountered in the operation of the project occurring at 0.5 to 2 km distance in SE direction with a concentration level of 57.14 ug/m^3 22.03 ug/m^3 and 396.41 ug/m^3 respectively.
6.	Proper EMP to address the air quality concern and/or impact on nearby areas (to Kanya ashram)	Mitigation measures proposed are as follows:- (i) Sensor based water sprinkling will be installed at loading, unloading, internal roads etc. (ii) Jet Sprinklers (automatic) to control fugitive emission will be there. (iii) Retention wall of 25 feet height over 335 running common boundary will be constructed. (iv) Arrangement of washing of wheels of the transportation vehicles. (v) Closed internal belt conveyors will be provided (vi) Fixed water sprinklers for coal stockyard (vii) Provision of Bag filters at coal crusher will be provided
7.	Disposal of washery rejects in conformity with the extant norms/guidelines in this regard.	Washery Reject Coal (i) 0.80 MTPA washery reject coal will be generated out of which 0.02 MTPA shale will used for land filling and road construction activities whereas 0.78 MTPA will be sold to Power plant/other user industries. (ii) M/s. CG Coal & Power Ltd. have made MoU with D B Power Ltd for procurement/purchase of 8,00,000 tons of washery reject coal. (iii) The rejects will be transported by road through covered trucks up to user Industries and/or by covered truck up to railway siding

Sl.	Observation	Reply by Project Proponent
		and then loaded in wagons. (iv) Thus, entire washery reject coal will be utilised in the power generation and there will not be any coal rejects storage or disposal required from the proposed coal washery.

Further, EAC in its meeting held on 22nd August, 2019, During deliberations on the proposal, the EAC took note of the order dated 10th July, 2019, passed by Hon"ble NGT, Principal Bench, New Delhi and observed that "No further industrial activities or expansion be allowed with regard to "red" and "orange" category units till the said areas are brought within the prescribed parameters or till carrying capacity of area is assessed and new units or expansion is found viable having regard to the carrying capacity of the area and environmental norms."

The Committee further noted that for utilization of washery rejects (0.8 MTPA) in the proposed power plant of M/s DB Power Ltd, the project proponent should explore for MoU with other potential consumers due to delay in its installation/commissioning, and also to utilize all the rejects for power generation rather than in proposed landfilling. The Committee also desired for further study in respect of impact on habitation/nearby villages (Village Batari) due to truck movement along approach road near washery. The Committee asked the project proponent to submit timelines for compliance of the conditions stipulated by Water Resources Department, Government of Chhattisgarh and source of water during lean period (mainly in summer season) of proposed water sources.

Detailed replies of project proponent are as under:

Sl.	Observation	Reply by Project Proponent
1.	No further industrial activities or expansion be allowed with regard to "red" and "orange" category units till the said areas are brought within the prescribed parameters or till carrying capacity of area is assessed and new units or expansion is found viable having regard to the carrying capacity of the area and environmental norms.	As per MoEFCC, New Delhi Letter No. F. No. 22-23/ 2018-IA.III (Pt) dtd. 31st October, 2019 pertaining to mechanism formulated for environmental management of critically and severely polluted areas for consideration of new activities/expansion by Red & Orange Category. M/s. C.G. Coal and Power Ltd. hereby committed to abide all stipulated Environmental Conditions and have submitted following undertaking: 1. That, the Green Belt area will be increased to 40% out of the total project area of 8.195 Hectare. We also undertake to plant around 6600 trees within the plant premises, considering 2000 trees / per hectare. 2. PP undertake to plant around 50,000 trees along both side of Bilaspur-Pali road, 400 m stretch from Bilaspur-Pali road to plant site, from plant site to Batari village 1200 m, within the Village Batari and other allocated

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Sl.	Observation	Reply by Project Proponent
		area and sites in phased manner; with the consent, advice and permission etc of Gram Pancharyat-Batari, Chhattisgarh Environment Conservation Board, State Government of Chhattisgarh and other local authorities etc within a period of 3 years from the date of commercial production. 3. That, for abatement of air pollution, necessary arrangements will be made for wheel washing of vehicles at the exit point of project, Water Sprinklers, Jet Sprinklers, Sensor based dry fog dust suppression system, Bag filters and covered transportation facilities etc. will be provided. 4. That, the total cost of project is around Rs. 60 Crore; we undertake to increased CER funds to 4% of the total project cost i.e. 2.40 Crores and the same shall be utilized for peripheral development at site in consultation with District Collector and local body. 5. PP undertake to carry following CER activities for improvement of basic infrastructure facilities namely drinking water facilities, primary health center facilities, plantation in an around the village, skill development, woman empowerment, sanitation and drainage, improvement of village road, rainwater harvesting and solar power facilities along with scientific support and awareness to local farmers to increased yield of crop and fodder in consultation with the Gram Panchayat-Batari, District Collector and local body authorities. 6. That, the proposed coal washery will be operated on 'Zero Liquid Discharge Principle'. There will not be any effluent discharge from the coal washery plant. Domestic effluent will be treated in STP. Treated water will be used for gardening within the plant premises. We also undertake to install 30 KLD STP based on MBBR technology. 7. PP undertake and committed to abide all the terms and conditions etc stipulated by the EAC on grant of EC.
2.	Utilization of washery rejects	• The entire quantity of proposed coal

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Sl.	Observation	Reply by Project Proponent
	(0.8 MTPA) in the proposed power plant of M/s DB Power Ltd, the project proponent should explore for MoU with other potential consumers due to delay in its installation/commissioning, and also to utilize all the rejects for power generation rather than in proposed landfilling.	washery rejects (0.8 MTPA) will be utilized in 2 x 600 MW power plants by M/s. DB Power Limited situated at Nandili Road, Badadarha, District Janggir-Champa, Chhattisgarh. • The 1st unit of 600 MW plant is in operations since 3rd Nov 2014 and 2nd unit of 600 MW plant is in operation since 26th March 2016 • The MoU is executed between M/s. CG Coal & Power Ltd. and M/s DB Power Ltd and D B Power Ltd has provided status report of 2*600 MW Power plants. • PP has submitted a letter of communication from DB Power Limited agreeing for purchase of 0.8 MTPA reject coal to be used in 2*600 MW Plants situated at Nandili Road, Badadarha, District Janggir-Champa, Chhattisgarh.
3.	The Committee also desired for further study in respect of impact on habitation/nearby villages (Village Batari) due to truck movement along approach road near washery.	PP mentioned that any development project/activities have impact on air quality, water quality, health aspects, land as well as crop productivity. The detailed study report submitted with following major mitigation measures: **Air Environment:** • Existing road width of 400m stretch is 3.5 m. After proposed implementation of project, road widening, width of road will be 14.85 M and 40 Ton (max.) trucks can be easily plied. The road widening activity will be undertaken during project implementation stage and will be completed before commercial operations of the project. • Plant boundary and approach road side plantation will also be undertaken simultaneously. • Regular sprinkling of water on 400m stretch for dust suppression • Wheels washing arrangement for transportation vehicles before exit from plant premises. • Overloading of trucks will not be allowed. • Speed limit of trucks will be maintained 20 KM/Hr. • All vehicles will have Pollution Control Certificate, (PUC) will be monitored

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Sl.	Observation	Reply by Project Proponent
		regularly for proper maintenance of trucks deployed for coal transportation. This will also be ensured during construction phase for material transport. • Covered trucks will avoid fugitive emission during transport. • Periodic preventive maintenance of equipment and Machineries for coal washing for efficient performance output. • Voluntary audits will be conducted for ISO 9001, ISO 14001 and OHSAS 18001 and the audit systems and procedures will be followed. Mock drills will also be conducted as part of audit and environment compliance. **Water Environment:** • All the process effluent generated in the plant will be treated in thickeners and will be reused in the coal washing process. The plant will be operated on 'Zero Liquid Discharge Principle'. There will not be any effluent discharge from the coal washery plant. • Domestic effluent will be treated in state of art Sewage treatment plant, (MBBR based). It is proposed to install 30 KLD STP. Treated water will be used for gardening within the plant premises. • Thus, there will not be any significant impact, anticipated on village batari and nearby habitation. **Health Aspects:** • The impact of washery project on health of Batari village and other nearby habitation will be insignificant because of systematic implementation of pollution control measures. Green belt development all along the project boundary will confine air emission. Plantation all along approach road will further enhance aesthetic environ. **Crop Productivity:** • The impact of the washery project on the crop yield along the approach road due to

Sl.	Observation	Reply by Project Proponent
		truck movement of the project will be insignificant due to plantation and water sprinkling measures. Covered trucks will avoid fugitive emission during transport. **Major pollution control activities:** 1. Plantation of 50,000 Nos. native species will be undertaken along both side of Bilaspur-Pali road, 400 m stretch from Bilaspur-Pali road to plant site, from project site to Batari village 1200 m (road distance) and within the Village Batari as well as other nearby villages subject to the permission of Chhattisgarh State Government, Chhattisgarh Energy Conservation Board and Local authorities. Plantation will be completed within a period of 3 years. 2. The project cost is Rs. 60 Crore. The fund allocation for CER activities will be increased to 4% of the total project cost i.e. 2.4 Crores and will be utilized for peripheral development at site in consultation with District Collector and local body. CER activities will include improvement of basic infrastructure facilities namely drinking water facilities, primary health center facilities, plantation in an around the village, skill development, woman empowerment, sanitation and drainage, improvement of village road, rainwater harvesting and solar power facilities along with scientific support and awareness to local farmers to increased yield of crop and fodder. 3. The proposed coal washery will be operated on 'Zero Liquid Discharge Principle'. There will not be any effluent discharge from the coal washery plant. Domestic effluent will be treated in STP. Treated water will be used for gardening within the plant premises. It is proposed to install 30 KLD STP based on MBBR technology
4.	The project proponent to submit timelines for compliance of the conditions stipulated by Water	• As per the terms of sanctioned letter vide letter no. 912/F 4-294/S-2/31/OJP/15, Naya Raipur dtd. 06.02.2019 of water

Sl.	Observation	Reply by Project Proponent
	Resources Department, Government of Chhattisgarh and source of water during lean period (mainly in summer season) of proposed water sources.	resource department, Govt. of Chhattisgarh; the water Reservoir of 20000 Cu.M. Capacity shall be constructed to cater for 15 days requirement. The detailed compliance of the conditions stipulated by WRD, Chhattisgarh is provided. Application is filed for extension of validity period of sanction letter.

PP reported that the proposed coal washery is situated nearer to the pit head of the existing operational Dipika coal mines of SECL on Korba-Bilaspur-Pali Road and most of the successful bidders having Fuel Supply Agreements (FSA) with SECL or procuring coal by road mode from SECL coal mines in spot e-auction, forward e-auction, exclusive e-auction, special e-auction, are transporting their coal through Korba – Bilaspur - Pali road. The company is hopeful for getting requisite raw coal from the aforesaid parties for washing.

Terms of Reference (TOR) granted vide letter no. No. J-11015/512/2014-IA-II (M) dated 18th August 2015. The capital cost of the proposed coal washery project is Rs.60 Crore. Total water requirement for the project is 1300 m3/day

PP reported that the source of water will be from proposed Fulzar Anicut on Ganjha nallah (Saliha nallah), near village Fulzar. Water Allocation Letter (Sanctioned) obtained from Water Resources Department Chhattisgarh for drawl of 1300 m3/day makeup water. Vide Letter No. 912/F 4-294/S-2/31/OJP/15 Naya Raipur, 06/02/2018. Application is filed for obtaining extension of validity period.

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

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing has been properly addressed in the EIA/EMP report. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Committee deliberated the compliance of the Ministry's OM No. 22-23/ 2018-IA.III (Pt) dtd. 31st October, 2019 pertaining to mechanism formulated for environmental management of critically and severely polluted

areas. The Committee found the plan is on order. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

52.4.3 The EAC, after detailed deliberation, **recommended** the proposal for grant of environmental clearance for proposed 2 x 2 MTPA Coal Washery (Wet Process) in two phases using heavy media cyclone technology in an area of 8.195 ha, under the provision of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars and OM dated 31.10.2019 thereto subject to the compliance of the following terms & conditions / specific conditions:-

(i) Necessary Permission for ground water withdrawal shall be obtained from Central Ground Water Authority (CGWA), if applicable.

(ii) The coal washery shall be operated on 'Zero Liquid Discharge Principle'. There will not be any effluent discharge from the coal washery plant. Domestic effluent will be treated in STP. Treated water will be used for gardening within the plant premises.

(iii) Disposal of washery rejects shall be in accordance with the extant policy and guidelines, and environment friendly.

(iv) Thick green belt of adequate width to be provided around the washery to mitigate/check the dust pollution. A 3-tier avenue plantation should also be developed along vacant areas, storage yards, loading/transfer points, and also along internal roads/main approach roads.

(v) Ash content below 34% should be maintained in washed coal to be transported beyond 500 km for use in thermal power plants.

(vi) The State Pollution Control Board, while considering consent to operate for the project, may stipulate stringent conditions as per Ministry's OM dated 31.01.2019 (CPA) to ensure that with the proposed transportation of washery rejects by road, air quality would remain within the national ambient air quality standards.

(vii) The Green Belt area will be increased to 40% out of the total project area of 8.195 Hectare. PP shall plant around 6600 trees within the plant premises, considering 2000 trees / per hectare.

(viii) PP shall also plant around 50,000 trees along both side of Bilaspur-Pali road, 400 m stretch from Bilaspur-Pali road to plant site, from plant site to Batari village 1200 m, within the Village Batari and other allocated area and sites in phased manner; with the consent, advice and permission etc. of Gram Pancharyat-Batari, Chhattisgarh Environment Conservation Board, State Government of Chhattisgarh and other local authorities. Plantation will be completed within a period of 3 years.

(ix) As committed by the PP, the fund allocation for CER activities shall be Rs. 2.4 Crores and will be utilized for peripheral development at site in consultation with District Collector and local body.

(x) Impact of proposed project/activity on hydrological regime of the area shall be assessed and report be submitted.

(xi) The project proponent shall prepare a species Specific Conservation Plan for Schedule-I Species and the same may be approved by the Chief Wildlife Warden of State Govt.. The recommendations of the approved Site-Specific Conservation Plan shall be implemented in consultation with the concerned State Department. The implementation report shall be furnished along with the six-monthly compliance report.

(xii) Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at loading and unloading points, etc.

(xiii) The project proponent shall conduct periodical training for the truck drivers for imparting safety training. The safety audit shall be conducted through a third party once in every two years.

Agenda No. 52.5

Expansion of Topa-reorganization Open Cast Coal Mining Project from 1.2 MTPA to 1.68 MTPA in an area of 276.66 ha of M/s Central Coalfields Limited located in located in District Hazaribagh (Jharkhand)- For consideration of Environmental clearance under the provision of clause 7(ii) of EIA Notification, 2006

[Proposal No. IA/JH/CMIN/9359/2007; F No. J-11015/632/2007-I.A II(M)]

52.5.1 The proposal is for environmental clearance under the provision of clause 7(ii) of EIA Notification, 2006 to Expansion of Topa RO OCP of 1.68 MTPA capacity in an area of 276.66 ha of M/s Central Coalfields Limited located in village Mangardaha, Banwar and Ravidostala of Topa Tehsil Mandu, District Ramgarh (Jharkhand).

52.5.2 Details of the proposal, are given as under:

(i) The project area is covered under Survey of India Topo Sheet No 73E/6 and is bounded by the geographical coordinates ranging from 23° 43′ 31″ N to 23° 44′ 50″ N and longitudes 85°28′10″ E and 85°29′31″ E.

(ii) No Joint venture cartel has been formed for Topa Reorganisation OCP

(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: Total Employment proposed is 306 of which employment for 205 was already generated.

(v) People will be benefitted due to direct and indirect employment opportunities. This will continue throughout the life of the project. Activities will lead to overall socio economic growth of the area. Socio- economic benefits of the projects will accrue to local population also.

(vi) Earlier, the environment clearance to the project was obtained under EIA Notification, 2006 Ministry's letter No J-11015/632/237-IA-II (M) dated 31.07.2008 for 1.2 MTPA in an area of 577 ha.

(vii) Total area as per block allotment is 3.56 sq km. Mining Plan (Including Progressive Mine Closure Plan) has been approved by the CCL Board on 18.09.2018.

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

SL No	Description	Forest land in Ha.	Non Forest Land (Ha)		Total land in Ha.
			GMK	Tenancy	
1	Quarry	18.37	25.07	48.69	92.13
2	External OB	0.00	4.76	46.52	51.28
3	Infrastructure	0.16	3.55	5.50	9.21
4	Rehabilitation site	0.23	0.08	10.48	10.79
5	Existing colony	38.19	2.04	0.27	40.50
6	Safety zone	0.00	8.37	31.93	40.30
7	Vacant land/ Green Belt	12.23	8.90	11.31	32.45
	Total	**69.18**	**52.77**	**154.71**	**276.66**

	During Mining		Post Mining	
Sl. No.	Particulars	Total Area in Ha	Particulars	Total Area in Ha
1	Quarry	92.13	Plantation on backfilled Quarry	49.85
			Mine void filled with water	42.28
2	External OB	51.28	Plantation on External Dump	51.28
3	Infrastructure	9.21	Infrastructure for future use	9.21
4	Rehabilitation site	10.79	Colony for CCL Use	51.29
5	Existing colony	40.50		
6	Safety Zone	40.30	Plantation on safety Zone and vacant Land	72.75
7	Vacant land/ Green Belt	32.45		
	Total	276.66	Total	276.66

(ix) Total geological reserve reported in the mine lease area is 119.92 MT with 10.20 MT mineable reserve. Out of total mineable reserve of 10.20 MT, 10.20 MT are available for extraction. Percent of extraction is 100%.

(x) 7 seams with thickness ranging from 0.55 m – 13.45 m are workable. Grade of coal is W-III & W-IV, stripping ratio 1.73 Cum/ Tonne, while gradient is 5° to 14°.

(xi) Method of mining operations envisages by Shovel Dumper combination method

(xii) Life of mine is 7 years.

(xiii) The total volume of OB to be removed from Topa OCP is estimated as 17.60 Mcum. It is proposed to dump OB externally and internally both in an area of 51.28 ha and 49.85 ha respectively.

(xiv) Total quarry area is 92.13 ha out of which backfilling will be done in 49.85 ha while final mine void will be created in an area of 42.28 ha. Backfilled quarry area of 49.85 ha shall be reclaimed with plantation. Final mine void will be filled with water.

(xv) Transportation of coal has been proposed by dumper in mine pithead, from surface to siding by tipping trucks.

(xvi) Reclamation Plan in an area comprising of 51.28 ha of external dump, 49.85 ha of internal dump and 72.75 ha of green belt/safety zone/vacant land.

(xvii) 69.18 Ha of forestland has been reported to be involved in the project. Approval under the Forest (Conservation) Act, 1980 for diversion of 77.30 ha of forest land for non-forestry purposes has been obtained vide MoEF&CC letter No 8-77/2003-FC.dated 30.07.2008 and 17.30 ha of forest land for non-forestry purposes has been obtained vide MoEF&CC letter No 8-82/90-FC.dated 27.03.1997.

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

(xix) The ground water level has been reported to be varying between 6.7 m to 10.4 m during pre-monsoon and between 3.65 m to 7.22 m during post-monsoon. Total water requirement for the project –Potable water demand -197.26 KLD and Industrial Water demand- 246.50 KLD.

(xx) Application for obtaining the approval of the Central Ground Water Authority has been submitted vide no:21-4/393/JH/MIN/2019 dated: 30.03.2019.

(xxi) Public hearing for the project of 1.2 MTPA capacity in an area of 577 ha was conducted on 16.03.2007 at Topa Project Office.

(xxii) Consent to Operate for the existing capacity was obtained from the State PCB on 18.03.2018 and is valid till 31.12.2022.

(xxiii) Topa nalla is flowing at a distance of 1 km in the north of boundary and no diversion is required.

(xxiv) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to JSPCB 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.

(xxv) No court cases, violation cases are pending against the project of the PP.

(xxvi) The project does not involve violation of the EIA Notification, 2006 and amendment issued thereunder. The coal production, realized from the project is as under.

(xxvii) Past production of the mine is as follows:

Year	Production in
2008-09	0.58
2009-10	0.70
2010-11	0.63
2011-12	0.67
2012-13	0.41
2013-14	1.03
2014-15	1.11
2015-16	0.88
2016-17	0.79
2017-18	1.12
2018-19	1.20

(xxviii) The project involves 272 project-affected families. R&R of the PAPs is being done as per R & R policy of CIL.

(xxix) Total cost of the project is Rs.58.4 Crores. Cost of production is Rs. 1297.30/- per tonne at 100 % production level and 1448.74. per tonne at 85 % production level, CSR cost is as per CSR Policy & Companies Act,2013, R&R cost is as per R & R policy of CIL.

52.5.4 The committee during deliberation noted the following:-

The proposal is for environmental clearance under the provision of clause 7(ii) of EIA Notification, 2006 to the project for expansion of Topa-reorganization Opencast Coal Mining Project from 1.2 MTPA to 1.68 MTPA in an area of 276.66 ha of M/s Central Coalfields Limited located in villages Mangadaha, Banwar and Ravidostala, Tehsil Mandu, District Ramgarh, Jharkhand.

Environment clearance to the project was obtained under EIA Notification, 2006 Ministry's letter No J-11015/632/237-IA-II (M) dated 31.07.2008 for 1.2 MTPA in an area of 577 ha (including forest land of 123.58 ha) based on public hearing conducted by the State Pollution Control Board on 16th March, 2007.

Mining Plan (Including Progressive Mine Closure Plan) within project area of 277.66 ha has been approved by the CCL Board on 18.09.2018.

Earlier the proposal was considered by EAC during its meeting held on 13-14 December, 2018 and desired that for action taken report duly endorsed by the Regional Office based on monitoring report dated 12th December, 2018. The Committee also

desired that air quality data and the modeling exercise, needs to be revisited by the project proponent to ensure consistency

Ministry's Regional Office, Ranchi inspected the project on 17th January, 2020 and the report was submitted on 22nd January, 2020. PP has submitted action plan for compliance of partial conditions of Topa OCP as per the latest RO Monitoring Report wherein total cost with time line has been submitted. Further Air quality impact assessment was presented by project proponent and additional control measures has been proposed.

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

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

The Committee noted that the report is in compliance for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

52.5.5 The EAC, therefore, after deliberations **recommended** for grant of environmental clearance for expansion of Topa-reorganization Opencast Coal Mining Project from 1.2 MTPA to 1.68 MTPA in an area of 276.66 ha of M/s Central Coalfields Limited, located in villages Mangadaha, Banwar and Ravidostala, Tehsil Mandu, District Ramgarh (Jharkhand), under the provision of clause 7(ii) of EIA Notification, 2006 and under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto in addition to the standard environmental conditions notified by the Ministry and mentioned below:

(i). EAC desired that the MoC may direct CIL subsidiaries to comply the EC/FC/CTO conditions strictly within certain time bound manner so that the mining operations will be environmentally sustainable/viable etc

(ii). Compliance of EC conditions will be again reviewed by EAC after one year as most of the condition are partially complied yet. If he conditions are not satisfactorily complied then EC will be revoked by the Ministry.

(iii). All the non-compliances and partially complied condition reported by Regional Office in its report dated 22nd January, 2020 has to be complied by March-June, 2020 (as committed by PP during EAC appraisal).

(iv). Project proponent to plant 50,000 nos. of native trees with broad leaves along the

transportation route from mine to railway siding in one year of the issue of this letter. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer

(v). The project proponent shall obtain Consent to establish from the State Pollution Control Boards for the proposed peak capacity of 1.68 MTPA prior to commencement of the increased production.

(vi). Wire fenching of west old abandon quarry shall be carried out and shall be completed in one year.

(vii). Transportation of coal from Coal Handling Plant shall be through covered trucks.

(viii). To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers.

(ix). Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at loading and unloading points, etc.

(x). Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.

(xi). Persons of nearby villages shall be given training on livelihood and skill development to make them employable.

(xii). Thick green belt of adequate width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check the dust pollution.

(xiii). Efforts shall be made for utilizing alternate sources of surface water, abandoned mines or else whatsoever and thus minimizing the dependability on a single source.

(xiv). The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 1.68 MTPA.

(xv). Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.

(xvi). A third party assessment of EC compliance shall be undertaken once in three years through agency like ICFRI /NEERI/IIT or any other expert agency identified by the Ministry.

(xvii). Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles

(xviii). The activities and fund provisions for CER shall be made as per the guidelines issued by the ministry regarding CER on 1st May, 2018.

(xix). Project Proponent shall obtain blasting permission from DGMS for conducting mining operation near villages and also explore deployment of rock breakers of suitable capacity in the project to avoid blasting very near to villages. There shall be no damages caused to habitation/structures due to blasting activity.

(xx). The Project Proponent shall complies with all the statutory requirements and

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

(xxi). Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table. The intersecting ground water table can only be commence after conducting detailed hydrogeological study and necessary permission from the CGWA. The Report on six monthly basis on changes in Ground water level and quality shall be submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.

(xxii). Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of antisnake venom including all other paramedical safeguards may be ensured before initiating the mining activities.

(xxiii). Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".

(xxiv). The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.

(xxv). The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.

(xxvi). 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 Ministry.

Agenda No.52.6

Expansion of Bhatadi Opencast Coal Mine from 0.975 MTPA to 1.465 MTPA (Peak) of M/s Western Coalfields Limited in mine lease area of 847.37 ha, located in Village Bhatadi, District Chandpur (Maharashtra) – Re-Consideration of Environmental Clearance

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

52.6.1 The EAC during deliberation noted the following:-

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

The proposal was earlier considered by the EAC in its meeting held on 17-18 April, 2018, 31st August, 2018 and 24th January, 2019. During the meeting, the Committee noted that the last public hearing for the project was conducted by the State Pollution Control Board on 20th July, 2004 i.e. much before the inception of the EIA Notification, 2006 presently in force. The Committee desired for compliance of the present provisions of the said Notification, and insisted for fresh public hearing for the proposed expansion from 0.975 MTPA to 1.465 MTPA, even if the project area remains same and the same was reiterated in other EAC meetings also. In line with observation of EAC, Project proponent has conducted Public Hearing on 13th September, 2019 at WCL Durgapur Auditorium, Tehsil Durgapur, District. Chandrapur, Maharashtra under the chairmanship of District Magistrate, Chandrapur

PP has submitted the Action Taken Report along with issues based fund allocation and timeline.

Further EAC in its meeting held on 15th November, 2019 observed that as the project involves schedule 1 species, PP has to submit conservation plan duly approved by concerned statutory authority as the buffer zone area falls under buffer zone of Tadoba Andhari Tiger Reserve. Details of pollution mitigation measures for villages (if any) to be affected by mining operations." Further, EAC desired that no OB dump or mining activity shall be dumped/carried out in and around 150 m of distance from bank of river.

PP submitted the Conservation Plan of Schedule – I species found in study area of the current proposal to EAC (Coal Mining Sector). Also it was noted that in a letter of communication to Director (Technical, P&P) from Principal Chief Conservator of Forest (Wildlife), Maharashtra State dated 30th December, 2019.

It has been submitted that as per directions of MoEF&CC to ensure compliance of recommendation of department related Parliamentary Standing Committee on Science & Technology Environment & Forests a detailed comprehensive study for Environmental Impact assessment of coalmines of WCL & Chandrapur Super Thermal Power Station on the wildlife of TATR (Tadoba Andhari Tiger Reserve) & preparation of conservation plan through WII & CSRI incorporating remedial measures in respect of adverse impact of the same NEERI is already underway. Therefore, it was of the opinion that a separate wildlife conservation plan only with respect to Bhatadi OC mines is not required.

Details of pollution mitigation measures for villages has been submitted by PP such as 16 nos of fixed sprinklers (@ coal transportation road), 30 Nos of mist sprinklers (@CHP), 3 nos of mobile tankers, etc. Further CHP side cladding with GI sheets, Black topping/concreting of coal transportation of road of approx.. 10.80 kms, Tarpaulin covering of Coal Transportation Trucks, Regular monitoring of air quality and additionally, on cluster basis, for continuous monitoring, CAAQMS is installed at Durgapur OC. Additional measures such as 1 no of truck mounted mist fogger, 1 nos of mechanical sweeping machine, pipe conveyor of approx. 6.25 km length to be commissioned by September, 2020.

It was submitted that presently the mining activities & dumping of OB are atleast 350 m away from the river bank. In future, the minimum distance of 150 m between the bank of the river (all along the bank) and mining activities/OB dump will always be maintained.

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

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing has been properly addressed in the EIA/EMP report. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

52.6.2 The EAC, therefore, after deliberations **recommended** for grant of environmental clearance for expansion of Bhatadi Opencast Coal Mine from 0.975 MTPA to 1.465 MTPA (Peak) of M/s Western Coalfields Limited in mine lease area of 847.37 ha, located in Village Bhatadi, District Chandpur, Maharashtra, under the provisions of

the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto in addition to the standard environmental conditions notified by the ministry and mentioned below:

(i). Distance from the mine and OB Dump shall be 150 m away from river.

(ii). All additional mitigation measures proposed shall be implemented in 1 year of issue of this letter.

(iii). Project proponent to plant 100,000 nos. of native trees with broad leaves along the periphery of the mine to prevent the effect of air pollution in 3 years of the issue of this letter. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer

(iv). Validity of EC is life of the mine or 30 years whichever is earlier as per EIA Notification, 2006

(v). The project proponent shall obtain Consent to establish from the State Pollution Control Boards for the proposed peak capacity of 1.465 MTPA prior to commencement of the increased production.

(vi). Transportation of coal from Coal Handling Plant shall be through covered trucks.

(vii). To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers.

(viii). Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at loading and unloading points, etc.

(ix). Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.

(x). Persons of nearby villages shall be given training on livelihood and skill development to make them employable.

(xi). Thick green belt of adequate width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check the dust pollution.

(xii). Efforts shall be made for utilizing alternate sources of surface water, abandoned mines or else whatsoever and thus minimizing the dependability on a single source.

(xiii). The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 1.465 MTPA.

(xiv). Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.

(xv). A third party assessment of EC compliance shall be undertaken once in three years through agency like ICFRI /NEERI/IIT or any other expert agency identified by the Ministry.

(xvi). Active OB Dump should not be kept barren/open and should be covered by

temporary grass to avoid air born of particles

(xvii). The activities and fund provisions for CER shall be made as per the guidelines issued by the ministry regarding CER on 1st May, 2018.

(xviii). Project Proponent shall obtain blasting permission from DGMS for conducting mining operation near villages and also explore deployment of rock breakers of suitable capacity in the project to avoid blasting very near to villages. There shall be no damages caused to habitation/structures due to blasting activity.

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

(xx). Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table. The intersecting ground water table can only be commence after conducting detailed hydrogeological study and necessary permission from the CGWA. The Report on six monthly basis on changes in Ground water level and quality shall be submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.

(xxi). Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of antisnake venom including all other paramedical safeguards may be ensured before initiating the mining activities.

(xxii). Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".

(xxiii). The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.

(xxiv). The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A

copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.

(xxv). 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 Ministry.

Agenda No.52.7

Rajmahal (Expansion) opencast coal mine project (17.0 MTPA capacity) an ML area of 1978.0 ha of M/s Eastern Coalfields Limited, located, in villages Bara Bhorai, Chhota Bhorai, Lohandiya, Paharpur and Talijhari, Tehsil Boarijore, District Godda, State (Jharkhand) - For Environmental Clearance – reg.

[Proposal No. IA/JH/CMIN/128369/2004; F.No. J-11015/30/2004-IA.II(M)]

52.7.1 The proposal was deliberated in EAC in its meeting held on 5th December, 2019 with the permission of Chairman, EAC. The proposal was already **recommended** by the EAC for grant of environmental clearance under clause 7(ii) of EIA Notification, 2006.

Agenda No.52.8

Expansion of Pauni- II Opencast Coal Mining Project with increase in production capacity from 0.60 MTPA to 3.25 MTPA in mine lease area of 1095.52 ha of M/s Western Coalfields limited located in village Sakhri, Tehsil Rajura, District Chandrapur (Maharashtra). – Extension of validity of Environmental Clearance

[IA/MH/CMIN/133855/2019; J-11015/80/2016-IA-II(M)]

52.8.1 The proposal is of extension of validity of Environmental Clearance to the Expansion of Pauni- II Opencast Coal Mining Project with increase in production capacity from 0.60 MTPA to 3.25 MTPA in mine lease area of 1095.52 ha of M/s Western Coalfields limited located in village Sakhri, Tehsil Rajura, District Chandrapur (Maharashtra).

52.8.2 The EC for the Expansion of Pauni- II Opencast Coal Mining Project with increase in production capacity from 0.60 MTPA to 3.25 MTPA in mine lease area of 1095.52 ha of M/s Western Coalfields limited located in village Sakhri, Tehsil Rajura, District Chandrapur, Maharashtra for a period of one year subject to compliance of terms and conditions as applicable, and the additional conditions as under:-

(i) The project proponent shall collect and analyze one season data for environmental parameters and submit for consideration of the EAC before 31st December, 2019.

(ii) The project proponent shall obtain Consent to establish from the State Pollution Control Boards for the proposed peak capacity of 3.25 MTPA prior to commencement of the increased production

(iii) Transportation of coal from face to Coal heap shall be carried out by truck. Further, the coal transportation from Coal heap to Coal Handling Plant shall be carried out through covered trucks.

(iv) To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers

(v) Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at railway siding, etc.

(vi) The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 3.25 MTPA.

(vii) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.

(viii) Persons of nearby villages shall be given training on livelihood and skill development to make them employable

(ix) To ensure health and welfare of nearby villages, regular medical camps shall be organized at least once in six months.

(x) Thick green belt of adequate width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check the dust pollution.

(xi) Efforts shall be made for utilizing alternate sources of surface water, abandoned mines or else whatsoever and thus minimizing the dependability on a single source.

(xii) A third party assessment of EC compliance shall be undertaken once in three

years through agency like ICFRI /NEERI/IIT or any other expert agency identified by the Ministry.

52.8.3 During deliberations, the EAC noted the following:

The proposal is for extension of validity of environmental clearance dated 28th March, 2019 to the Expansion of Pauni-II Opencast coal mining project from 0.60 MTPA to 3.25 MTPA capacity in mine lease area of 1095.52 ha of M/s Western Coalfields limited located in village Sakhri, Tehsil Rajura, District Chandrapur (Maharashtra)

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

S. No.	Observations	Compliance status
1	The project proponent shall collect and analyze one season data for environmental parameters and submit for consideration of the EAC before 31st December, 2019.,	The one season data for environmental parameters / one season baseline data has been collected during Pre-Monsoon Season i.e. October 2019 to December 2019. The Baseline monitoring report along with EC Compliance has been submitted to MoEF & CC through online portal vide dated 28-12-2019
2	The project proponent shall obtain Consent to establish from the State Pollution Control Boards for the proposed peak capacity of 3.25 MTPA prior to commencement of the increased production	The consent to establish & operate has been recommended by MPCB in its CAC meeting held in August 2019. Awaiting for formal letters
3	Transportation of coal from face to Coal heap shall be carried out by truck. Further, the coal transportation from Coal heap to Coal Handling Plant shall be carried out through covered trucks.	Transportation of coal from coal face to coal heap is carried out by trucks. Coal transportation from coal heap to coal handling plant at Gouri is done through tarpaulin covered trucks.
4	To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers	The mine has started its operation in FY 16-17. In the last FY 18-19 it has produced only 0.60 MTPA against the EC of 3.25 MTPA. CHP hasn't been constructed yet. Adequate dust suppression arrangement will be put into operation once it comes up. At present coal from Pauni II Expansion OC is crushed in Gouri I&II(A) OC CHP premises. Dust suppression measures at Gouri are 3 nos departmental mobile tankers with capacity 28 KL each and1 no hired tanker with capacity 12 KL. 9 nos of sprinklers are installed at CHP in Gouri I&II(A)

S. No.	Observations	Compliance status
		OC . Dust suppression measures at Pauni II Expansion OC are 10 nos of rain guns installed at coal stock. 8 nos rainguns installed at weighbridge. Portable sprinklers with flexible pipes are provided at coal stock yard for dust suppression. Additional 10 nos rainguns to be installed at coal stock in FY 2019-20. 2 hired mobile water tankers of capacities 20 KL are in operation.
5	Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at railway siding, etc.	Adequate mitigation measures have been put in place at various dust generating sources to control dust and other fugitive emissions. The details of existing systems are as follows: • 10 nos of rain guns installed at coal stock. • 8 nos rainguns installed at weighbridge. • Portable sprinklers with flexible pipes are provided at coal stock yard for dust suppression. • Additional 10 nos rainguns to be installed at coal stock in FY 2019-20. • 2 hired mobile water tankers of capacities 20 KL are in operation.
6	The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 3.25 MTPA.	Approval for Groundwater from CGWA has been obtained vide letter no. CGWA/NOC/MIN/ORIG/2019/6229 valid from 30/09/2019 to 29/09/2021.
7	Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.	Initial medical examination (IME) is done for every worker. Moreover regular health checkups through periodical medical examination (PME) of all the workmen once in 5 years as per the statue and workers above 55 years of age once in a year is conducted. All the works are being carried out with all the safety measures and awareness is being created among employees for safety and to avoid any accidents. Details of IME done in last 3 years are given below: Year | IME

<table>
<tr><th>S. No.</th><th>Observations</th><th>Compliance status</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td></td><td>Contractual</td><td>Departmental</td></tr>
<tr><td>2016-17</td><td>37</td><td>07</td></tr>
<tr><td>2017-18</td><td>45</td><td>39</td></tr>
<tr><td>2018-19</td><td>77</td><td>22</td></tr>
<tr><td>2019-20 (upto Jun'19)</td><td>31</td><td>05</td></tr>
</table>
</td></tr>
<tr><td>8</td><td>Persons of nearby villages shall be given training on livelihood and skill development to make them employable</td><td>Skill development programs are being done along with CSR activities in nearby villages for improving skills and for enhanced employment opportunities. Nearby villagers are bring given preference for employment in contractual means.
Following skill development programmes have been undertaken:

i. Mobile repairing training programme from/ 19/02/2019 to 19/03/2019(25 nos. participants)
ii. Beautician course from 03/03/2019 to 31/03/2019(25 nos. participants), was organized for local communities in 2018-19 with an expenditure of
2.82 lakhs.
iii. Tailoring Programme for 25 nos. participants from local communities is planned in FY 19-20.</td></tr>
<tr><td>9</td><td>To ensure health and welfare of nearby villages, regular medical camps shall be organized at least once in six months.</td><td>Health camps are being conducted in nearby villages with our company doctors and staff for improving awareness and health consciousness among people.

Medical camp has been conducted at Sasti village on 12/07/2019.
Regular medical camps are also conducted at Area Hospital for all nearby villages in Ballarpur area.

CSR clinic is provided at area hospital which has attendance of 150 persons (avg) per month from different villages surrounding mines of Ballarpur Area.</td></tr>
<tr><td>10</td><td>Thick green belt of adequate width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check</td><td>Till date, 25000 nos of plantation in approximately 10.0 Ha on plain land near External OB dump has been carried out in July 2017. Types of species planted are as detailed below:</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Observations</th><th>Compliance status</th></tr>
<tr><td></td><td>the dust pollution.</td><td>
<table>
<tr><th>Sr no</th><th>Species</th><th>Numbers</th></tr>
<tr><td>1</td><td>Amla</td><td>500</td></tr>
<tr><td>2</td><td>Jamun</td><td>500</td></tr>
<tr><td>3</td><td>Ganga Imli</td><td>115</td></tr>
<tr><td>4</td><td>Neem</td><td>6450</td></tr>
<tr><td>5</td><td>Karanj</td><td>3000</td></tr>
<tr><td>6</td><td>Sissoo</td><td>2000</td></tr>
<tr><td>7</td><td>Peltafarm</td><td>3500</td></tr>
<tr><td>8</td><td>Babool</td><td>925</td></tr>
<tr><td>9</td><td>Teak</td><td>1000</td></tr>
<tr><td>10</td><td>Gulmohar</td><td>4000</td></tr>
<tr><td>11</td><td>Casia</td><td>2000</td></tr>
<tr><td></td><td>TOTAL</td><td>25010</td></tr>
</table>
</td></tr>
<tr><td>11</td><td>Efforts shall be made for utilizing alternate sources of surface water, abandoned mines or else whatsoever and thus minimizing the dependability on a single source.</td><td>There is no utilization of surface water in mine. The entire demand viz. for dust suppression, plantation, washing etc. is met from the pumped out mine water.

The mine water/seepage water is being collected in mines in the sump, initially it is being sedimented to free from any particles. The same water is being used for firefighting and dust suppression in mines.</td></tr>
<tr><td>12</td><td>A third party assessment of EC compliance shall be undertaken once in three years through agency like ICFRI /NEERI/IIT or any other expert agency identified by the Ministry.</td><td>The third part assessment of EC compliance has been undertaken through CSIR-NEERI (Expert Agency identified by Ministry).
The third party assessment of EC compliance report has been secured from CSIR-NEERI vide its letter dated 03.12.2019.</td></tr>
</table>

Further Certified Compliance Report of Ministry's Regional Office, Nagpur dated 5th December, 2019 was reviewed by EAC. The site visit by Regional Office has been conducted on 26th July, 2019. It was directed that all the conditions of EC shall be complied by PP within certain timeframe. Also, it is noted that Total land is 1152.66 ha which involves 12.07 ha of forest land however EC granted is for 1095.52 ha.

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

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

The Committee noted that the report is in compliance, reflecting the present environmental concerns and the projected scenario for all the environmental components. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

52.8.4 The EAC, after detailed deliberations and duly considering compliance of EC dated 28th March, 2019, and also those of the third Party assessment of EC conditions by CSIR-NEERI vide their letter dated 03rd December, 2019, **recommended** for continuance of the environmental clearance dated 28th March, 2019 for life of the mine or 30 years whichever is earlier, as per provisions of EIA Notification, 2006 with the conditions remaining the same in earlier EC and in addition to the conditions as mentioned below:-

(i). EAC desired that the MoC may direct CIL subsidiaries to comply the EC/FC/CTO conditions strictly within certain time bound manner so that the mining operations will be environmentally sustainable/viable etc

(ii). All the partially complied condition observed by Ministry's Regional Office in certified compliance report dated 5th December, 2019 shall be completed in 3 years.

(iii). PP shall implement in-pit belt conveyor system in next 3 years from the issue of this letter.

(iv). Project proponent to plant 100,000 nos. of native trees with broad leaves along the periphery of the mine to prevent the effect of air pollution in 3 years of the issue of this letter. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer

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

(vi). Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table. The intersecting ground water table can only be commence after conducting detailed hydrogeological study and necessary permission from the CGWA. The Report on six monthly basis on changes in Ground water level and quality shall be

submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.

(vii). Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of antisnake venom including all other paramedical safeguards may be ensured before initiating the mining activities.

(viii). Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".

(ix). The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.

(x). The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.

(xi). 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 Ministry.

Agenda No.52.9

Expansion of Gondegaon Extension OC Coal Mining Project for a production capacity of 3.50 MTPA in an area of 917.0 ha (mine lease area of 845.74 ha) of M/s Western Coalfields Limited, Located in Tehsil Parseoni District Nagpur, (Maharashtra) – For extension in Environmental Clearance

52.9.1 The proposal is for amendment in Environmental Clearance for Expansion of Gondegaon Extension OC coal mining project for a production capacity of 3.50 MTPA in an area of 791.40 ha of M/s Western Coalfields Limited, located in Teshil Parseoni, District Nagpur (Maharashtra)

52.9.2 During deliberations, the EAC noted the following:

Earlier, the environment clearance to the project was obtained under EIA Notification, 2006 vide Ministry's letter No. J-11015/106/2009- IA. II (M) dated 14th March, 2018 for 3.5 MTPA in mine lease area of 917.0 ha with one year validity. Further extension in validity of EC was given another one year on 28th March, 2019.

PP has submitted proposal in amendment in EC, however Ministry's in its letter dated 6th December, 2019 desired that both the cases of amendment and extension shall be taken up together and therefore earlier recommendation of EAC in its meeting held on 22nd October, 2019 was held up.

The Revised Mining Plan (built-in Mine Closure Plan) of Expansion of Gondegaon Extension OC has been approved by WCL board its Board vide its resolution no. WCL/ BD/ SECTT/ BM-314/ 2019/ 852 dated 12th September, 2019 with a production capacity of 3.50 MTPA for lease area of 791.40 ha

In compliance of MoEF & CC directives, Certified Copy of Compliance for Expansion of Gondegaon Extension opencast coal mine project has been secured from RO, MoEF & CC, Nagpur vide its letter no.EC -766 /RON/ 2018/ NG/ 6001 dated 20th December, 2019. Site visit was conducted on 25th September, 2019 by Regional Office. The action taken report on Partial Non-compliance has been submitted to RO, MoEF & CC, Nagpur vide dated 23rd December, 2019. The Committee deliberated the same.

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

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

The Committee noted that the report is in compliance, reflecting the present environmental concerns and the projected scenario for all the environmental components. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

52.9.3 The EAC, after detailed deliberations and duly considering compliance of EC dated 28th March, 2019 as certified by Ministry's Regional Office, **recommended** for **continuance of the environmental clearance dated 28th March, 2019 for life of the mine or 30 years whichever is earlier**, as per provisions of EIA Notification, 2006 with the conditions remaining the same in earlier EC and in addition to the conditions as mentioned below:-

(i). EAC desired that the MoC may direct CIL subsidiaries to comply the EC/FC/CTO conditions strictly within certain time bound manner so that the mining operations will be environmentally sustainable/viable etc

(ii). All the partially complied condition observed by Ministry's Regional Office in certified compliance report dated 20th December, 2019 shall be completed in 3 years.

(iii). Project proponent to plant 100,000 nos. of native trees with broad leaves along the periphery of the mine to prevent the effect of air pollution in 3 years of the issue of this letter. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer

(iv). PP shall ensure no pollution to Kanha river and accordingly minimum distance of 150 m all along the bank of river shall be maintained.

(v). All the recommendation of carrying capacity of riverine ecosystem being conducted by NEERI shall be implemented in timebound manner.

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

(vii). Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table. The intersecting ground water table can only be commence after conducting detailed hydrogeological study and necessary permission from the CGWA. The Report on six monthly basis on changes in Ground water level and quality shall be submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.

(viii). Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of antisnake venom including all other paramedical safeguards may be ensured before initiating the mining activities.

(ix). Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".

(x). The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.

(xi). The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.

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

Agenda No.52.10

KDH extension OCP Project of (4.5 MTPA Normative) to (5.0 MTPA Peak) Project in an ML area 489.30 ha of M/s Central Coalfields Limited located in village Bisrampur, District Ranchi, (Jharkhand) – For EC Amendment

[IA/JH/CMIN/131319/2019] F.No. J-11015/311/2010-IA-II(M)

52.10.1 The EAC during deliberation noted the following:-

The proposal is for Extension in mine life of KDH Extension OCP Project of 4.5/5 MTPA capacity in an area of 489.30 Ha of M/s Central Coalfields Limited located in village Bishrampur, District: Ranchi (Jharkhand).

Earlier, the environment clearance to the project was obtained under EIA Notification, 2006 Ministry's letter No J-11015/311/2010-IA.II (M) dated 30th January, 2015 in an area of 489.30 Ha for 4.5(Normative) / 5 (Peak) MTPA capacity. The life of the mine was 5 Years as per EC.

Mining Plan (Including Progressive Mine Closure Plan) has been approved by the CCL Board on 19.08.2010. Revised mine plan was approved on 04.11.2014.

Proposal is submitted for extension in mine life of KDH OCP as balance reserve in mine is about 1.82 MT and accordingly the mine life will be about 2 years at an average production from 2015-16 to 2019-20 (Till 15 Dec 2019) i.e. 0.85 MTY.

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

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

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

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

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

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

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

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

The Committee noted that the proposal for extension of validity of environmental clearance was submitted by project proponent on 16th December, 2019 i.e. within the one month of the validity period of EC letter dated 30th January, 2015.

52.10.2 The EAC after deliberation observed that though the application for extension is eligible under Ministry's Notification dated 29th April, 2015, however PP has not revised the Mine Plan (including Mine Closure Plan). It was noted by EAC that valid plan is very basic document for any coal mine project and PP and their consultants should atleast not do such silly mistake. EAC desired that the MoC may direct CIL subsidiaries to comply with these documents and come prepared with all relevant documents. For further extension it was desired that PP must submit approved revised Mine Plan and certified compliance status of EC conditions duly certified by Ministry's Regional Office, Ranchi.

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

Agenda No 52.11

Dipka Opencast Coal Mine Expansion Project of 35 MTPA in an ML area of 1999.293 ha M/s South Eastern Coal Fields Limited. Located in village Dipka Tehsil Korba (Chhattisgarh)- For extension in validity of Environmental Clearance – reg.

[IA/CG/CMIN/127735/2019] F.No. J-11015/487/2007-IA-II(M)

52.11.1 The proposal is for expansion of EC validity beyond 20th March, 2020 in respect of Dipka Opencast coal mine in mining lease area of 1999.293 ha of M/s South Eastern Coalfields Limited in District Korba (Chhattishgarh).

52.11.2 During deliberations, the EAC noted the following:-

The proposal is for continuation of environmental clearance dated 20th March, 2019 to the Dipka Opencast Coal Mine Expansion Project of 35 MTPA in an ML area of 1999.293 ha M/s South Eastern Coal Fields Limited. Located in village Dipka Tehsil Korba (Chhattisgarh).

The project was granted environmental clearance by the Ministry vide letter dated 20th March, 2019, subject to compliance of certain terms and conditions, inter-alia including the following:-

"subject to review of compliance status of the conditions by the EAC to consider continuance of the project after one year".

The Ministry's Regional Office at Nagpur has conducted site inspection of the project site on 5th November, 2019 to monitor the status of compliance of conditions stipulated in the environmental clearance dated 20th March, 2019 and submitted report vide their letter dated 27th November, 2019. The project proponent has submitted action plan to the EAC. The same was, however, yet to be endorsed by the Regional Office.

The Compliance of specific conditions and action plan mentioned in EC was presented to EAC. Further Action taken report shall be submitted to Ministry's Regional Office.

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

52.11.3 The EAC, after detailed deliberations duly considering observations of the Ministry's Regional Office in their letter dated 27th November, 2019, **recommended** for **continuance of the environmental clearance dated 20th March, 2019 for a period of 30 years or life of the mine,** whichever is earlier, subject to the terms and conditions stipulated therein remaining the same.

The Committee also recommended the additional conditions

(i). EAC desired that the MoC may direct CIL subsidiaries to comply the EC/FC/CTO conditions strictly within certain time bound manner so that the mining operations will be environmentally sustainable/viable etc.

(ii). Also, EAC asked project proponent to plant 50,000 nos. of native trees (excluding other conditions of plantation given by this Ministry) with broad leaves along the villages and transportation route to prevent the effect of air pollution in three years. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Office.

(iii). All Partially and non-complied conditions reported by Ministry's Regional Office in its certified compliance report dated 27th November, 2019 shall be completed in 2 years from the date of issue of this letter.

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

(v). Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table.

The intersecting ground water table can only be commence after conducting detailed hydrogeological study and necessary permission from the CGWA. The Report on six monthly basis on changes in Ground water level and quality shall be submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.

(vi). Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of antisnake venom including all other paramedical safeguards may be ensured before initiating the mining activities.

(vii). Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".

(viii). The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.

(ix). The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.

(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 Regional Office of the Ministry.

Agenda No 52.12

Argada Sirka Group of Mines (Sirka OCP, Sirka UGP & Argada UGP) for 1.125 MTPA normative and 1.293 MTPA peak in a total ML area of 907.04 ha of M/s Central Coalfields Limited, Located in, District Ramgarh, (Jharkhand) – For EC Amendment

[IA/JH/CMIN/19287/2008] F.No. J-11015/462/2008-IA-II(M)

52.12.1 The EAC during deliberation noted the following details:-

The proposal is for amendment in environmental clearance dated 25th September, 2014 to Argada-Sirka Group Mixed Mines (Argada UG,Sirka OC & Sirka UG) for 1.125 MTPA (Normative) and 1.293 MTPA (Peak) in a total mine lease area of 907.74 Ha of M/s Central Coalfields Limited located in District Ramgarh (Jharkhand).

Earlier EC was granted for life of mine as per EIA Notification 2006 for Sirka OCP(1.0/1.15 MTPA) with a life of 4 Years, Sirka UGP (0.040/0.046) with life of >30 years, Argadda UG (0.085/0.097 MTPA) with a life of >30 Years.

The current proposal is extend the life of mine of Sirka OCP for a further period of 3 years. Final closure activities are being implemented

Validity of EC was already expired in 25th September, 2018 considering life of mine of Sirka OCP (4 years mine life).

52.12.2. The EAC, after deliberations, observed that in view of the mine life earlier estimated to be of 4 years for one of the mine, environmental clearance dated 25th September, 2014 was valid till 25th September, 2018 only. There being no amendment so far in the said environmental clearance and the same no more valid as of now, ongoing/continuing mining would be seen as violation of the EIA Notification, 2006.

The proposal was **returned** as it is in present form.

Agenda No 52.13

Bharatpur Opencast (Expansion) Coal Mine Project of 20 MTPA capacity of in mine lease area of 1386.20 ha of M/s Mahanadi Coalfields Limited (MCL) located in Tehsil Talcher, District Angul (Odisha) - Amendment in Environmental Clearance.

[IA/OR/CMIN/9356/2007, F. No - J-11015/630/2007-I. A- II(M)]

52.13.1. The proposal is for amendment in environmental clearance dated 31st October, 2008 granted by the Ministry in favour of M/s Mahanadi Coalfields Ltd to Bharatpur Opencast Expansion project (15 MTPA to 20 MTPA) located in Talcher Coalfields, Tehsil Talcher, District Angul (Odisha).

52.13.2. The proposal was earlier considered by the EAC in its meeting held during 31st August, 2018 & subsequently in its 45th meeting dated 27.05.2019 wherein the EAC observed that "The EAC, in the first instance was agreed in-principle for the proposed amendment for reduction in mine lease area from 1324.80 ha to 927.42 ha, and thus

amendment in environmental clearance dated 31st October, 2008 with all other terms and conditions stipulated therein remaining unchanged. At the same time, the committee talking note of its earlier observations (overlapping of land areas involved in the said coal mining projects, simultaneously figuring in the respective ECs) regarding non-compliance of the conditions stipulated in the respective ECs, insisted that the Ministry may first take a view in complete perspective".

52.13.3. During Deliberations the EAC noted the following

The proposal is for amendment in environment clearance dated 31st October, 2008 granted by the Ministry to the project for expansion of Bharatpur Opencast Coal mine from 15 to 20 MTPA of M/s Mahanadi Coalfields Limited in mine lease area of 1324.80 ha (includes 185.08 ha of forest and 1139.72 ha of non-forest land) located at Tehsil Talcher, District Angul (Odisha).

The common safety zone between Bharatpur and Ananta OCPs which was proposed to be worked by Ananta OCP was regularized in the Ananta OC Expn. 20.00 MTPA EC dated 10th December, 2014 and the said area is yet to be worked.

Similarly, the common safety zone between Bharatpur and Jagannath OCPs which was worked by Jagannath OCP was regularized in the Jagannath OC Expn. 7.5 MTPA EC dated 6th September, 2018.

This proposal submitted by Bharatpur OCP is for removal of these overlapping of land areas and thus for amendment in its environmental clearance dated 31st October, 2008 due to reduction in mine lease area from 1324.80 ha to 927.42 ha.

Though the overlapping areas are lying in common blasting safety zone of adjacent mines of M/s Mahanadi Coalfields Limited, the mines have been/are working in their respective EC areas.

52.13.4. The EAC after deliberations observed that by bringing such proposals for change in area of three mines although all these mines belong to same project proponent thereby creating unnecessary issues. It was desired that PP must first produce the mine plan all three adjacent mines with the said proposed changes in area (i.e. Bharatpur, Ananta, Jagannath). If the Ananta OCP and Jagannath OCP has been regularised and being worked out, without revised mine plan (including area of Bharatpur OCP) then it's a gross non-compliance. Also, it was noted that there cannot be common safety zone, if the projects having separate EC then each projects need to have a separate safety zone of each. **During the EAC, PP could not explain properly the requisite information as sought by the EAC.** Further, it was suggested that if needed, PP may merge these ECs and take a single EC. Thereafter, after detailed deliberation, the EAC **deferred** the proposal.

Agenda No 52.15

Cluster 12 comprising of 19 mines of a combined production capacity of 27.16 MTPA (Normative)/31.83 MTPA (Peak) in a combined ML area of 13759.55 ha M/s Eastern Coalfields Limited located in Raniganj Coalfields in Tehsil Haripur

494596/2021/IA_I

Block, District Burdwan (West Bengal) – Amendment in Environmental Clearance – reg.

[IA/WB/CMIN/9503/2011; F.No. J-11015/76/2011-IA.II(M)]

52.15.1 The EAC during deliberations noted the followings: -

The proposal is for Amendment in EC condition of Cluster 12 comprising of 15 mines of a combined production capacity of 27.16 MTPA (Normative)/31.83 MTPA (Peak) in a combined ML area of 12736 ha M/s Eastern Coalfields Limited located in Raniganj Coalfields in Tehsil Haripur Block, District Burdwan (West Bengal).

Earlier, amendment in environment clearance dated 9th February, 2015 was made and communicated to the project proponent vide letter dated 3rd March, 2016, on account of reorganisation of mines resulting in number of mines reduced from 19 to 15 and the combined mine lease area from 14047 ha to 12736 ha with restructuring of production of individual mines however without any change in the overall production capacity

EC amendment dated 3rd March, 2016 includes restructuring of production of Jhanjra UGP was enhanced from 3.50 MTPA to 5.0 MTPA with additional specific conditions as stated below:-

"the silo loading facility at Jhanjra should be completed within three years, and the production from Jhanjra should be enhanced to 5.0 MTPA only after commissioning both of the new railway siding, and the silo loading facilities"

PP submitted that production has been limited to 3.5 MTPA till now and commissioning of Railway Siding & Silo loading facilities is yet to be initiated

Amendment has been sought for allowing production up to 4.0 MTPA with existing system of transport i.e. exempting above condition.

52.15.3 Earlier, EAC in its meeting held on 31st August, 2018 observed that the proposal for construction of railway siding was still in the initial stages as only work order for preparation of DPR was issued on 22nd December, 2017. Further, no acquisition of land was done and as such, no satisfactory progress was observed.

Further, the Committee especially in view of no forest clearance available for 38.44 ha of forest land involved under one of the constituent mines namely, Tilaboni UG, did not agree to the proposed amendment in the environmental clearance dated 9th February, 2015, amended on 3rd March, 2016.

52.15.3 The EAC after deliberations reiterated the earlier observation as mentioned in para 52.15.2. Also, committee noted that these amendments would not be required if PP comply all the conditions however PP does not bother to comply and keep on seeking amendments and relaxation. PP should strictly abide the conditions and should not increase the production beyond 3.5 MTPA till the compliance of conditions are completed. Further, committee desired that this Ministry may communicate to Ministry

of Coal that enforcement and regulating the compliance status of EC conditions should be on top priority.

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

Agenda No 52.16

Batura Highwall Project of 0.5 MTPA of M/s South Eastern Coalfields Limited in an area of 397.776 ha located in Tehsil Solapur, District Shahdol (Madhya Pradesh) – For Terms of Reference

[IA/MP/CMIN/105100/2019; F.No. IA-J-11015/54/2019-IA-II(M)]

52.16.1 The proposal is for Terms of Reference for Batura Highwall Project of 0.5 MTPA of M/s South Eastern Coalfields Limited in an area of 397.776 ha located in Tehsil Solapur, District Shahdol, Madhya Pradesh.

52.16.2. 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 Batura HW Block located in the western part of Sohagpur Coalfield lies in Tahsil Annuppur, District Annuppur and about 20 Km North of Annuppur town and about 50 Km South east of Shahdol, the district headquarters

(ii) Joint Venture: No

(iii) The latitude and longitude of the project are Latitude-$23^0$13'00" to $23^0$14'00" N, Longitude-$81^0$37'00" to $81^0$41'00" E, respectively.

(iv) Mining Plan for the project, including Progressive Mine Closure Plan, was approved by the Board of M/s South Eastern Coalfields Ltd was approved in its meeting held on 25/07/2015.

(v) The project involves total land of 397.776 ha for quarry, industrial, residential complex, safety zone, and roads. The detailed land use pattern is as under:

Pre mining Land Use pattern

S.N.	Land use	Within ML Area (ha)	Outside ML Area (ha)	Total
1	Agricultural Land	353.662	0.000	353.662
2	Forest Land	0.000	0.000	0.000
3	Waste Land	0.000	0.000	0.000
4	Grazing Land	0.000	0.000	0.000
5	Surface water bodies	4.880	0.000	4.880
6	Others (Govt. land)	39.234	0.000	39.234
	TOTAL	397.776	0.000	397.776

Post mining Land use:

S.N.	Land use during Mining	Land Use (Ha)

		Plantation	Water Body	Public Use	Undisturbed	TOTAL
1.	External OB Dump	20.820	0	0	0	20.820
2.	Top soil Dump	1.000	0	0	0	1.000
3.	Internal OB Dump	51.000	0	0	0	51.000
4.	Roads	0	0	9.480	0	9.480
5.	Built up area	0	0	5.100	0	5.100
6.	Green Belt	71.760	0	0.000	0	71.760
7.	Undisturbed Area	0.000	0	0.000	238.616	238.616
	TOTAL	144.580	0	14.580	238.616	397.776

(vi) The project does not have any forest land involved.

(vii) There are no ecologically sensitive areas such as Biosphere Reserves/National Parks/WL Sanctuaries/ Elephant Reserves is not available within 10 km radius of the project. There are no Schedule-I species as per Wildlife (Protection) Act, 1972 in the core and buffer zones of the project.

(viii) There are no court cases/litigations pending against the project.

(ix) As coal demand for TPS has no firm linkage, the project may be linked to new upcoming thermal power projects likely to come in nearby Coalfield. The coal from the mine to surface will be transported through trucks and from siding to consumers with rail.

(x) Total net geological reserve is 5.57 MT. Total mineable reserves of the proposed mine have been estimated as 5.25 Million Tonnes. The percent of extraction would be 60%. There is only one major coal seams with thickness ranging from 0.38 - 2.05 m, respectively. The grade of the coal is G-4 and the stripping ratio is 25 cum/tonne. The average gradient is 1 in 30 m.

(xi) Highwall Miner has been proposed to work for extraction of coal based on geo-mining parameters of the quarry. Coal production will be done through outsourcing. Coal mined by the Highwall miner will be transported by trucks/dumpers from the pit to coal stock yard, coal stock yard to railway siding and also by road.

(xii) The estimated life of the mine is 08 years.

(xiii) Top soil over the trenches will be removed, stock-piled and redistributed to achieve uniform thickness consistent with the post mining land uses, contours and surface water drainage system.

(xiv) The total 51 Ha area will be back filled and reclaimed by spreading top soil and planting native species. Internal dumping will start from 5th year onwards. Total of 2 no of external OB dumps will be there in an area of 20.82 Ha of a volume 6M Cum and a max height of 60m.

Type of Dump	**Area (ha)**	**Quantity of Overburden(Mm3)**
Internal Dump	51.00	12.75
External Dump	20.82	6.0 (back filling 6th to 8 th years)

(xv) Total water demand for this Project works out to be around 78.007 m3/day (Industrial 74.25 KL source: mine water and domestic: 3.757 KL, source: borewell). Ground water clearance will be obtained.

(xvi) The pre-monsoon of ground water levels in the study area are in the range of 6.09m (min) to 12.70 m (max). Post-monsoon of ground water levels in the study area are in the range of 1.75m to 10.90m.

(xvii) The number of affected land oustees has been estimated as 582 and the number of families to be displaced from the villages falling within the mine block as 582.

(xviii) The estimated project cost is Rs.231.9209 crores. The capital cost of Environmental Protection Measures (EMP) is Rs. 2.141 Crores, R&R cost of Rs. 51.1651 Crores. The recurring cost of Environmental Protection Measures (EMP) is Rs. 0.206 Crores/Annum. The estimated employment generation is 69 nos (Department) and approx 500 nos. (Allied services manpower).

(xix) Benefits of the project: Project will considerably improve the socio-economic status of the adjoining areas. This will result in benefits such as improvements in physical infrastructure; improvements in social infrastructure, increase in employment potential, contribution to the exchequer, meet energy requirement and post-mining enhancement of green cover.

52.16.3 The EAC after deliberation noted the following:-

The proposal is for Terms of Reference for Batura Highwall Project of 0.5 MTPA of M/s South Eastern Coalfields Limited in an area of 397.776 ha located in Tehsil Solapur, District Shahdol, Madhya Pradesh.

The project does not have any forest land involved for non-forestry activity. Mining Plan for the project, including Progressive Mine Closure Plan, was approved by the Board of M/s South Eastern Coalfields Ltd was approved in its meeting held on 25/07/2015

52.16.4 The Committee, after deliberations, **recommended** for grant of terms of references Batura Highwall Project of 0.5 MTPA of M/s South Eastern Coalfields Limited in an area of 397.776 ha located in Tehsil Solapur, District Shahdol (Madhya Pradesh) and specific conditions as below and as defined in the Standard ToR issued by this Ministry for such projects/activities under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto.

(i). Permission for ground water withdrawal shall be obtained from Central Ground Water Authority (CGWA), if applicable

(ii). Fund allocation for Corporate Environment Responsibility (CER) shall be made as per Ministry's O.M. No. 22-65/2017-IA.III dated 1st May, 2018 for various activities therein. The details of fund allocation and activities for CER shall be incorporated in EIA/EMP report

(iii). PP shall demarcate and explain the exact area and location for storage of top soil in mine plan

Agenda No 52.17

Gandhigram UG coal mine Project of 1.60 MTPA in an area of 734.378 ha of M/s Western Coalfields Limited, located in, Tehsil Ghoradongri, District, Betul, (Madhya Pradesh) – For Amendment in ToR

[IA/MP/CMIN/127278/2019] F.No. J-11015/27/2017-IA.II(M)

52.17.1 The proposal is for obtaining amendment in ToR for Gandhigram UG mine for 1.26 MTPA within area of 734.378 ha of M/s Western Coalfields Limited located in Ghoradongri tehsil of Betul district (Madhya Pradesh).

52.17.2 The EAC during deliberation noted the following :-

The proposal is for obtaining amendment in ToR for Gandhigram UG mine for 1.26 MTPA within area of 734.378 ha of M/s Western Coalfields Limited located in Ghoradongri tehsil of Betul district, Madhya Pradesh.

Earlier, Terms of References (ToR) for Gandhigram UG coal mine project was granted by MoEF & CC vide its letter no. J- 11015/27/2017-IA-II(M) dated 20.07.2017 for a production capacity of 1.60 MTPA in an area of 735.073 ha.

Subsequently, Project report for Gandhigram UG mine has been recast in May - 2019. The Recast Project Report (including Mining Plan with built-in Mine Closure Plan) of Gandhigram UG Mine has been approved by WCL board vide its resolution no. WCL/ BD/ SECTT/ BM-314/ 2019/842 dated 12.09.2019 with a production capacity of 1.26 MTPA for an area of 734.378 ha (721.190 ha within ML area + 13.188 ha outside ML area).

The comparative chart showing change in configuration as per approved Recast Project Report is as follows:

Sl. No.	Land Use	Configuration as per ToR dated 20.07.2017			Proposed configuration as per approved Recast Project Report in amended ToR solicited for		
		Within ML Area (ha)	Outside ML Area (ha)	Total	Within ML Area (ha)	Outside ML Area (ha)	Total (ha)
1	Agricultural land	62.496	10.86	73.356	50.970	9.73	60.700
2	Forest land	628.067	6.14	634.207	648.37	2.446	650.816
3	Waste land/Govt. land	27.51	-	27.51	21.850	1.012	22.862
4	Grazing land	--	--	--	--	--	--
5	Surface water	--	--	--	--	--	--

	bodies						
6	Settlements	--	--	--	--	--	--
7	Others (specify)	--	--	--	--	--	--
	Total	718.073	17.00	735.073	**721.190**	**13.188**	**734.378**

As such, this application for amendment of ToR for Gandhigram UG coal mine project for a production capacity of 1.26 MTPA in an area of 734.378 ha (721.190 ha within ML area + 13.188 ha outside ML area) is being made as required under EIA notification, 2006.

The total land requirement for this project is 734.378 ha, out of this 650.816 ha is forest land, 22.862 ha is government land and balance land 60.70 ha is tenancy/agriculture land.

It was noted the there are changes in agricultural land area and forest land area. The agricultural land area has now decreased and forest land area has increased with overall slight reduction in area from 735.073 ha to 734.378 ha.

Changes in Land use details are as follows:

Sl. No.	**Land Use**	**Rights**	**Type of land**	**Area (Ha)**
A)	**Infrastructure**			
	Two no. of Inclines, Air shaft, approach to airshaft, Service Buidings, Road from Satpura Dam to Mine site etc.	Surface / all Rights	Tenancy	15.340
			Govt.	2.598
			Forest	7.616
	Sub-Total (A)			**25.554**
B)	**Mining Area**			
	For UG mine working	ALL Right	Tenancy	45.360
			Govt.	20.264
		Mining Right	Forest	643.200
	Sub-Total (B)			**708.824**
	Total			**734.378**

52.17.3 The EAC after deliberation **recommended** the proposed changes desired for amendment in ToR for the project Gandhigram UG coal mine Project of 1.60 MTPA in an area of 734.378 ha of M/s Western Coalfields Limited located in Tehsil Ghoradongri, District, Betul, (Madhya Pradesh) with all the conditions remaining same and with additional conditions as follows:

(i). Application for stage – I forest clearance for the increased area

(ii). Fund allocation for Corporate Environment Responsibility (CER) shall be made as per Ministry's O.M. No. 22-65/2017-IA.III dated 1st May, 2018 for various activities therein. The details of fund allocation and activities for CER shall be incorporated in EIA/EMP report

(iii). Certificate of Ground water clearance from CGWA

(iv). Compensatory afforestation to be done and native trees to be planted/transplanted preferably subject to permission granted by the State Government.

Any other Item deliberated with the permission of the Chairman

Agenda No 52.18

Sayal D Opencast Coal Mine Project of 1.0 MTPA (Normative)/1.35 MTPA (Peak)of M/s Central Coalfields Ltd in a project area of 286.98 ha in District Ramgarh (Jharkhand) – Environmental Clearance

The EAC during deliberations noted the following:-

The above proposal is for grant of environmental clearance to Sayal D Opencast Coal Mining Project of 1.0 MTPA Normative and 1.35 MTPA Peak Capacity in project area of 286.98 ha of M/s Central Coalfields Limited located in Bakra Syal area, District Ramgarh (Jharkhand).

Mine Plan including Mining Closure Plan for Sayal D OCP was approved on 03th November, 2017 for a mine closure cost of Rs. 3033.62 Lakhs.

The proposal was considered by the Expert Appraisal Committee (EAC) in the Ministry for Thermal & Coal Mining Projects in its 24th meeting held on 11th January, 2017. The EAC, after deliberations, recommended the project for grant of environmental clearance.

The Ministry, after examination of the recommendation of the EAC and further deliberations on the reported mining operations in the past desired following details:

(i) Detail of EC granted by the Ministry/SEIAA for the reported mining operations in the past at the project site.

(ii) Year wise production detail since the year 2000-01, as reported to the Coal Controller Organization

(iii) Mine Closure status submitted to the DGMS and the compliance thereof.

It was noted that a meeting between representative of the PP was convened under the chairmanship of Joint Secretary on 16th March, 2018 and above details were sought again. However, PP in its reply did not provided the details of Mine Plan and Mine Closure Report, year wise details of activities carried out and expenditure incurred in the mine closure since inception.

Also, it is to be noted that Project Proponent has submitted the Consent to Operate (CTO) of the mine. Emission Consent order under Air (Pollution & control of Pollution) Act since the year 1994 to 2005 and Discharge Consent Order under Water (Prevention & control of pollution) since the year 1989-2001 has been submitted by PP. No CTO has been submitted by project proponent from 2005 to 2017. It is to be noted that consent document does not mention the capacity of production.

Further, the past production details of the mine since 1973-74 to 2018-19 wherein data of production depicts that production started way back in 1980-81 till 2000-01. There was no production carried out after 2000-01. Also, it has been submitted that there is no requirement of Mining Lease and its renewal as the land was acquired under Coal Bearing Area (Acquisition & Development) Act, 1957.

It is observed from the production data that PP has not exceeded from base year of 1993-94 i.e. production is not more than 0.394 MTPA.

Mine Plan/Scheme of earlier production since 1980 - 2000-01 has not been submitted by PP yet after reputed request. Also, nothing has been informed about the Mine Closure report, its requirement and/or the applicability for the said mine.

The proposal cannot have considered as green field project as already coal has been extracted earlier as per production and without environmental clearance under 1994 and 2006 notification. However, mining is non-operational since 2000-01.

In a repeated communication with PP and the Ministry, PP has not yet submitted Mine Plan and Mine Closure Report Status for the previous mining activity.

The EAC after deliberations and in view of facts on project file observed that PP must provide the details about earlier mining activity and therefore must submit the details of Mine Plan and Mine Closure Report for the previous mining operation. Also as the CTO's does not mention the quantity, earlier mine plan will support in ascertaining about violation from base year production of i.e. 1993-94. In case of non-submission of relevant documents by PP, the proposal may be kept on hold and earlier recommendation of EAC shall be kept in abeyance till further submission by project proponent.

Agenda No 52.19

Amrapali Opencast coal mining project of 12 MTPA in an area of 619.87 ha of M/s Central Coalfields Limited, located in Tehsil Tandwa, District Chatra (Jharkhand) - Revalidation of Environmental Clearance

The EAC during deliberations noted the following:-

The proposal is for revalidation of the environmental clearance dated 3rd January, 2006 granted by the Ministry in favour of M/s Central Coalfields Ltd for Amrapali Opencast Coal Mining Project of 12 MTPA in mine lease area of 1426.08 ha located villages KhumarangKhurd, KhumarangKalan, Ursu, Binglat, Honhe, tehsil Pachra Block, District Chatra (Jharkhand), as mandated under the Ministry's Notification dated 6th April, 2018.

The proposal was considered by the Expert Appraisal Committee (EAC) in the Ministry for Thermal & Coal Mining Sector in its 44th meeting held on 24-25 April, 2019 has recommended the project for grant revalidation of environmental clearance based on Ministry's Notification dated 6th April, 2018

The Ministry, after examination of the recommendation of the EAC and further deliberations observed that EC was granted for an area of 1426.08 ha however during

revalidation PP has reduced the area from 1426.08 to 619.87 ha and accordingly revised the mine plan with the capacity remaining the same.

It was noted that reduction in area is due to involvement of forest land (793.08 ha) wherein PP has obtained Stage-II for 531.64 ha and remaining forest land is still under process. Further, as per Ministry's OM dated 31st March, 2011 and its further clarification dated 9th September, 2011 based on Judgement of Hon'ble Supreme Court dated 6th July, 2011 in the case of Lafarge mining. Therefore, PP has reduced the area and revised the Mine Plan excluding the balance forest land for which Stage-I FC is not available.

The EAC after deliberation observed that, in view of facts above, the proposal may be considered for revalidation of Environmental Clearance and also of amendment in Environmental Clearance due to change in area. The EAC recommended the change in area which is due to unavailability of Stage-I FC and further reiterated the earlier recommendation of revalidation of EC.

The meeting ended with thanks to the Chair.

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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 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 statue be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM_{10}, $PM_{2.5}$, SO_2 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 $PM_{10}/PM_{2.5}$) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.

(iv) The transportation of coal shall be carried out as per the provisions and route envisaged in the approved Mining Plan or environment monitoring plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.

(v) Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.

(vi) Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered

to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.

(vii) Coal handling plant shall be operated with effective control measures w.r.t. various environmental parameters. Environmental friendly sustainable technology should be implemented for mitigating such parameters.

(c) Water quality monitoring and preservation

(i) The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board.

(ii) The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No.J-20012/1/2006-lA.11 (M) dated 27th May, 2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.

(iii) Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.

(iv) Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.

(v) Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.

(vi) Catch and/or garland drains and siltation ponds in adequate numbers and appropriate size shall be constructed around the mine working, coal heaps & OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be properly consolidated/ compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. The drains/ ponds so constructed shall be regularly de-silted particularly before onset of monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper settling of silt material. The water so collected in the sump shall be utilised for dust suppression and green belt development and other industrial use. Dimension of the retaining wall constructed, if any, at the toe of the OB dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the dump and adjacent field/habitation/water bodies.

(vii) Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) after due treatment conforming to the specific requirement (standards).

(viii) Industrial waste water generated from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed under the standards prescribed under Water Act 1974 and Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Adequate ETP /STP needs to be provided.

(ix) The water pumped out from the mine, after siltation, shall be utilized for industrial purpose *viz.* watering the mine area, roads, green belt development *etc.* The drains shall be regularly desilted particularly after monsoon and maintained properly.

(x) The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations, considering the presence of river/rivulet/pond/lake etc, shall be prepared and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the approved Mining Plan/EIA/EMP report and with due approval of the concerned State/GoI Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved Mining Plan and as per the permission of DGMS or any other authority as prescribed by the law.

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

(d) Noise and Vibration monitoring and prevention

(i) Adequate measures shall be taken for control of noise levels as per Noise Pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.

(ii) Controlled blasting techniques shall be practiced in order to mitigate ground vibrations, fly rocks, noise and air blast etc., as per the guidelines prescribed by the DGMS.

(iii) The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

(e) Mining Plan

(i) Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.

(ii) Mining shall be carried out as per the approved mining plan(including Mine Closure Plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).

(iii) No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980.

(iv) Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.

(f) Land reclamation

(i) Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change(MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).

(ii) The final mine void depth should preferably be as per the approved Mine Closure Plan, and in case it exceeds 40 m, adequate engineering interventions shall be provided for sustenance of aquatic life therein. The remaining area shall be backfilled and covered with thick and alive top soil. Post-mining land be rendered usable for agricultural/forestry purposes and shall be diverted. Further action will be treated as specified in the guidelines for Preparation of Mine Closure Plan issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.

(iii) The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conformity with the "during mining"/"post mining" land-use pattern, which is an integral part of the approved Mining Plan and the EIA/EMP submitted to this Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the MOEFCC/RO.

(iv) Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3rd November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, along with fly ash for external dump of overburden, backfilling of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.

(v) Further, it may be ensured that as per the time schedule specified in mine closure plan it should remain live till the point of utilization. The topsoil shall temporarily be stored at earmarked site(s) only and shall not be kept unutilized. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be stabilised with native grass species to prevent erosion and surface run off. The other overburden dumps shall be vegetated with native flora species. The excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated areas shall continue

until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change/ Regional Office.

(vi) The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

(g) Green Belt

(i) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered/endemic flora/fauna, if any, spotted/reported in the study area. The Action plan in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.

(ii) Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the mine lease area as soon as possible. The green belt comprising a mix of native species (endemic species should be given priority) shall be developed all along the major approach/ coal transportation roads.

(h) Public hearing and Human health issues

(i) Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & it's RO on six-monthly basis.

(ii) The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, as amended time to time.

(iii) Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.

(iv) Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.

(v) The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.I1 (M) dated 29th October, 2014, titled

'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

(i) Corporate Environment Responsibility

(i) The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No.22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.

(ii) The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violation of the environmental/forest/wildlife norms/conditions and/or shareholders/stake holders.

(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; PM_{10}, SO_2, NOx (ambient levels) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

(v) The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

(vi) The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.I1 (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

(vii) The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

(viii) The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.

(ix) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

(x) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

(xi) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change.

(xii) Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

(xiii) The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

(xiv) The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

(xv) The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

(xvi) The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and

Other Wastes (Management and Trans-boundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

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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. (incase of the presence of schedule-I species in the study area)

(v) The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.

(vi) The project proponent shall obtain the necessary permission from the Central Ground Water Authority.

(vii) Solid waste/hazardous waste generated in the mines needs to addressed in accordance to the Solid Waste Management Rules, 2016 / Hazardous & Other Waste Management Rules, 2016

II. Air quality monitoring and preservation

i. Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely particulates, SO_2 and NO_x. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive receptors in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, *etc.* to be carried out at least once in six months. Online ambient air quality monitoring station/stations may also be installed in addition to the regular air monitoring stations as per the requirement and/or in consultation with the SPCB

ii. The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.

iii. Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water sprinkling/rain gun/ mist sprinkling etc., shall be carried out in critical areas prone to air pollution with higher level of particulate matter all through the coal transport roads, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.

iv. Major approach roads shall be black topped and properly maintained.

v. The transportation of coal shall be carried out as per the provisions and route proposed in the approved mining plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed that the impact of sound, dust and accidents could be appropriately mitigated.

vi. Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.

vii. Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.

viii. Coal handling plant shall be operated with effective control measures w.r.t. various environmental parameters. Environmental friendly sustainable technology should be implemented for mitigating such parameters.

III. **Water quality monitoring and preservation**

i. The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board.

ii. The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J-20012/1/2006-IA.11 (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.

iii. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and

constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.

iv. Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.

v. Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.

vi. The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the mine. The embankment constructed along the river/nallah boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side, stabilized with plantation so as to withstand the peak water pressure preventing any chance of mine inundation.

vii. Garland drains (of suitable size, gradient and length) around the critical areas i.e. mine shaft and low lying areas, shall be designed keeping at least 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. The sump capacity shall also provide adequate retention period to allow proper settling of silt material of the surface runoff

viii. The water pumped out from the mine, after siltation, shall be utilized for industrial purpose viz. watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.

ix. Industrial waste water from coal handling plant and mine water shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made thereunder, and as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluent. Sewage treatment plant of adequate capacity shall be installed for treatment of domestic waste water.

x. Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.

xi. The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations shall be prepared, considering the presence of any river/rivulet/pond/lake etc., with impact of mining activities on it, and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the provisions of the approved Mining Plan/ EIA-EMP submitted to this Ministry and the same should be done with due approval of the concerned State/GoI Authority. The construction of

embankment to prevent any danger against inrush of surface water into the mine should be as per the approved mining plan and as per the permission of DGMS.

xii. The project proponent shall take all precautionary measures to ensure reverian/ riparian ecosystem in and around the coal mine upto a distance of 5 km. A 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, alongwith fly ash for external dump of overburden, backfilling or stowing of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.

v. A separate team for subsidence monitoring and surface mitigation measures shall be constituted and continuous monitoring & implementation of mitigation measures be carried out.

vi. Thorough inspection of the mine lease area for any cracks developed at the surface due to mining activities below ground shall be carried out to prevent inrush of water in the mine.

vii. Native tree species shall be selected and planted over areas affected by subsidence.

viii. The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

VII. Green Belt

i. The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered flora/fauna, if any, spotted/reported in the study area. Action plan, in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.

ii. Greenbelt, consisting of three-tier plantation, of width not less than 7.5 m, shall be developed all along the mine lease area in a phased manner. The green belt

comprising of a mix of native species shall be developed all along the major approach roads/ coal transportation roads.

VIII. Public hearing and Human health issues

i. Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored.

ii. The Project Proponent shall undertake Occupational Health survey for initial and Periodical medical examination of the workers engaged in the Project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS Circulars. Besides carrying out regular periodic health check-up of their workers, 20% of the workers engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any.

iii. Personnel (including outsourcing employees) working in dusty areas shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.

iv. Skill training as per safety norms specified by DGMS shall be provided to all workmen including the outsourcing employees to ensure high safety standards in mines.

v. Effective arrangement shall be made to provide and maintain at suitable points conveniently situated, a sufficient supply of drinking water for all the persons employed.

vi. Implementation of Action Plan on the issues raised during the Public Hearing shall be ensured. The Project Proponent shall undertake all the tasks as per the Action Plan submitted with budgetary provisions during the Public Hearing. Land oustees shall be compensated as per the norms laid out R&R Policy of the Company/ or the National R&R Policy/ R&R Policy of the State Government, as applicable

vii. The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.I1 (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

IX. Corporate Environment Responsibility

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.

ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms

/ conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

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

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

X. Miscellaneous

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

ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

iv. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

v. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

vi. The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.

vii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

ix. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

x. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

xiii. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

xiv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

xv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

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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 NOx. 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 statue be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM_{10}, $PM_{2.5}$, SO_2 and NO_x. Location of the stations shall be decided based on the meteorological data, topographical features and

environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.

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

iv. All approach roads shall be black topped and internal roads shall be concreted. The roads shall be regularly cleaned. Coal transportation shall be carried out by covered trucks.

v. Covered trucks shall be engaged for mineral transportation outside the washery upto the railway siding, shall be optimally loaded to avoid spillage en-route. Trucks shall be adequately maintained and emissions shall be below notified limits.

vi. Facilities for parking of trucks carrying raw material from linked mine shall be created within the unit.

vii. Vehicular emissions shall be kept under control and regularly monitored. The vehicles having 'PUC' certificate from authorized pollution testing centres shall be deployed for washery operations.

viii. Hoppers of the coal crushing unit and other washery units shall be fitted with high efficiency bag filters/mist spray water sprinkling system shall be installed and operated effectively at all times of operation to check fugitive emissions from crushing operations, transfer points of closed belt conveyor systems and from transportation roads.

ix. The raw coal, washed coal and coal wastes (rejects) shall be stacked properly at earmarked site (s) within stockyards fitted with wind breakers/shields. Adequate measures shall be taken to ensure that the stored mineral does not catch fire.

x. The temporary reject sites should appropriate planned and designed to avoid air and water pollution from such sites.

III. **Water quality monitoring and preservation**

i. The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board.

ii. The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J-20012/1/2006-IA.11 (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for compliance.

iii. Industrial waste water shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time.

iv. The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the washery. The embankment constructed along the river/nallah boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side stabilised with plantation so as to withstand the peak water pressure preventing any chance of inundation.

v. Heavy metal content in raw coal and washed coal shall be analysed once in a year and records maintained thereof.

vi. The rejects should preferably be utilized in FBC power plant or disposed off through sale for its gainful utilization. If the coal washery rejects are to be disposed off, it should be done in a safe and sustainable manner with adequate compaction and post closure arrangement to avoid water pollution due to leachate from rejects and surface run of from reject dumping sites.

vii. An Integrated Surface Water Management Plan for the washery area up to its buffer zone considering the presence of any river/rivulet/pond/lake *etc*. with impact of coal washing activities on it, shall be prepared, submitted to MoEFCC and implemented.

viii. Waste Water shall be effectively treated and recycled completely either for washery operations or maintenance of green belt around the plant.

ix. Rainwater harvesting in the washery premises shall be implemented for conservation and augmentation of ground water resources in consultation with Central Ground Water Board.

x. No ground water shall be used for coal washing unless otherwise permitted in writing by competent authority (CGWA) or MoEFCC. The make-up water requirement of washery should not exceed 1.5 m3/tonne of raw coal.

xi. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.

xii. Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.

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

IV. Noise and Vibration monitoring and prevention

i. The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis

ii. Adequate measures shall be taken for control of noise levels as per noise pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.

V. Coal beneficiation

i. Coal stacking plan shall be prepared separately for raw coal, clean coal, middling and rejects.

ii. Efforts should be made to reduce energy consumption by conservation, efficiency improvements and use of renewable energy.

VI. Green Belt

i. Three tier greenbelt comprising of a mix of native species, of minimum 30 m width shall be developed all along the washery area to check fugitive dust emissions and to render aesthetic to neighbouring stakeholders. A 3-tier green belt comprising of a mix of native species or tree species with thick leaves shall be developed along vacant areas, storage yards, loading/transfer points and also along internal roads/main approach roads.

ii. The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

VII. Public hearing and Human health issues

i. Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & its RO on six-monthly basis.

ii. The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel

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

iii. Personnel (including outsoured employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.

iv. Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.

v. The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.I1 (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

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 approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

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

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

IX. Miscellaneous

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

ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

iv. The project proponent shall monitor the criteria pollutants level namely; PM_{10}, SO_2, NOx (ambient levels) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

vii. The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.

viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

x. No change in coal beneficiation process and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC) with such conditions mentioned therein. No change in the maximum quantum of raw material feed per annum against the approved washery capacity shall be made

xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

xv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

xvi. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

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ANNEXURE-IV

Generic ToR for coal washery

i. Siting of washery is critical considering to its environmental impacts. Preference should be given to the site located at pit head; in case such a site is not available, the site should be as close to the pit head as possible and coal should be transported from mine to the washery preferably through closed conveyer belt to avoid air pollution.
ii. The washery shall not be located in eco-sensitive zones areas.
iii. The washery should have a closed system and zero discharge. The storm drainage should be treated in settling ponds before discharging into rivers/streams/water bodies.
iv. A thick Green belt of about 50 m width should be developed surrounding the washery.
v. A brief description of the plant alongwith a layout, the specific technology used and the source of coal should be provided.
vi. The EIA-EMP Repot should cover the impacts and management plan for the project of the capacity for which EC is sought and the impacts of specific activities, including the technology used and coal used, on the environment of the area (within 10km radius), and the environmental quality of air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts for the rated capacity. Cumulative impacts for air and water should be a part of EIA in case coal mine, TPP and other washeries are located within 10km radius. The EIA should also include mitigative measures needed to minimize adverse environmental impacts.
vii. A Study Area Map of the core zone as well as the 10km area of buffer zone showing major industries/mines and other polluting sources should be submitted. These maps shall also indicate the migratory corridors of fauna, if any and areas of endangered fauna; plants of medicinal and economic importance; any ecologically sensitive areas within the 10 km buffer zone; the shortest distance from the National Park/WL Sanctuary Tiger Reserve, etc. alongwith the comments of the Chief Wildlife Warden of the State Govt.
viii. Data of one-season (non-monsoon) primary- base-line data on environmental quality of air (PM_{10}, $PM_{2.5}$, SOx and NOx, noise, water (surface and groundwater), soil be submitted.
ix. The wet washery should generally utilize mine water only. In case mine water is not available, the option of storage of rain water and its use should be examined. Use of surface water and ground water should be avoided.
x. Detailed water balance should be provided. The break-up of water requirement as per different activities in the mining operations vis-a-vis washery should be given. If the source of water is from surface water and/or ground water, the same may be justified besides obtaining approval of the Competent Authority for its drawl.
xi. The entire sequence of mineral production, transportation, handling, transfer and storage of mineral and waste, if any, and their impacts on air quality should be shown in a flow chart with specific points where fugitive emissions can arise and specific pollution control/mitigative measures proposed to be put in place. The washed coal and rejects should be transport by train as far as possible. Road transport of washed coal and rejects should generally be avoided. In case, the TPP is within 10km radius, it should be through conveyer belt. If transport by rail

is not feasible because of the topography of the area, the option for transport by road be examined in detail and its impacts along with the mitigation measures should be clearly brought out in EIA/EMP report.

xii. Details of various facilities proposed to be provided in terms of parking, rest areas, canteen etc. to the personnel involved in mineral transportation, workshop and effluents/pollution load from these activities should be provided.

xiii. Impacts of CHP, if any, on air and water quality should also be spelt out alongwith Action Plan.

xiv. O.M.no.J-ll0I3/25/2014-IA.I dated 11th August, 2014 to be followed with regard to CSR activities.

xv. Details of Public Hearing, Notice(s) issued in newspapers, proceedings/minutes of Public Hearing, points raised by the general public and response/commitments made by the proponent along with the Action Plan and budgetary provisions be submitted in tabular form. If the Public Hearing is in the regional language, an authenticated English translation of the same should be provided. Status of any litigations/ court cases filed/pending, if any, against the project should be mentioned in EIA.

xvi. Analysis of samples indicating the following be submitted:

Characteristics of coal prior to washing (this includes grade of coal, other characteristics of ash, S and heavy levels of metals such as Hg, As, Pb, Cr etc).

Characteristics and quantum of coal after washing.

Characteristics and quantum of coal rejects.

xvii. Details of management/disposal/use of coal rejects should be provided. The rejects should be used in TPP located close to the washery as far as possible. If TPP is within a reasonable distance (10 km), transportation should be by conveyor belt. If it is far away, the transportation should be by rail as far as possible.

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

xix. Corporate Environment Responsibility:

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

xx. A detailed action Plan for Corporate Social Responsibility for the project affected people and people living in and around the project area should be provided.

xxi. Permission of drawl of water shall be pre-requisite for consideration of EC.

xxii. Wastewater /effluent should confirm to the effluent standards as prescribed under Environment (Protection) Act, 1986

xxiii. Details of washed coal, middling and rejects along with the MoU with the end-users should be submitted.

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ANNEXURE-V

GENERIC TOR FOR AN OPENCAST COALMINE PROJECT for EC

(i) An EIA-EMP Report shall be prepared for..... MTPA rated capacity in an ML/project area of.....ha based on the generic structure specified in Appendix III of the EIA Notification, 2006.

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

(iii) A toposheet specifying locations of the State, District and Project site should be provided.

(iv) A Study area map of the core zone (project area) and 10 km area of the buffer zone (1: 50,000 scale) clearly delineating the major topographical features such as the land use, surface drainage pattern including rivers/streams/nullahs/canals, locations of human habitations, major constructions including railways, roads, pipelines, major industries/mines and other polluting sources. In case of ecologically sensitive areas such as Biosphere Reserves/National Parks/WL Sanctuaries/ Elephant Reserves, forests (Reserved/Protected), migratory corridors of fauna, and areas where endangered fauna and plants of medicinal and economic importance found in the 15 km study area should be given.

(v) Land use map (1: 50,000 scale) based on a recent satellite imagery of the study area may also be provided with explanatory note on the land use.

(vi) Map showing the core zone delineating the agricultural land (irrigated and un-irrigated, uncultivable land as defined in the revenue records, forest areas (as per records), along with other physical features such as water bodies, etc should be furnished.

(vii) A contour map showing the area drainage of the core zone and 25 km of the study area (where the water courses of the core zone ultimately join the major rivers/streams outside the lease/project area) should also be clearly indicated in the separate map.

(viii) A detailed Site plan of the mine showing the proposed break-up of the land for mining operations such as the quarry area, OB dumps, green belt, safety zone, buildings, infrastructure, CHP, ETP, Stockyard, township/colony (within and adjacent to the ML), undisturbed area -if any, and landscape features such as existing roads, drains/natural water bodies to be left undisturbed along with any natural drainage adjoining the lease /project areas, and modification of thereof in terms of construction of embankments/bunds, proposed diversion/re-channelling of the water courses, etc., approach roads, major haul roads, etc should be indicated.

(ix) In case of any proposed diversion of nallah/canal/river, the proposed route of diversion /modification of drainage and their realignment, construction of embankment etc. should also be shown on the map as per the approval of Irrigation and flood control Department of the concerned state.

(x) Similarly if the project involves diversion of any road/railway line passing through the ML/project area, the proposed route of diversion and its realignment

should be shown in the map along with the status of the approval of the competent authority.

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

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

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

(xii) Break-up of lease/project area as per mining plan should be provided.

(xiii) Impact of changes in the land use due to the project if the land is predominantly agricultural land/forestland/grazing land, should be provided.

(xiv) One-season (other than monsoon) primary baseline data on environmental quality - air (PM_{10}, $PM_{2.5}$, SO_x, NO_x and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil - along with one-season met data coinciding with the same season for AAQ collection period should be provided.

(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 though 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^{o} angle as the ultimate slope should be given. Sections of final dumps (both longitudinal and cross section) with relation to the adjacent area should be shown.

(xxviii) Efforts be made for maximising progressive internal dumping of O.B., sequential mining, external dump on coal bearing area and later rehandling into the mine void.--to reduce land degradation.

(xxix) Impact of change in land use due to mining operations and plan for restoration

of the mined area to its original land use should be provided.

(xxx) Progressive Green belt and ecological restoration /afforestation plan (both in text, figures and in the tabular form as per the format of MOEFCC given below) and selection of species (native) based on original survey/land-use should be given.

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

S.N.	Land use Category	Present (1st Year)	5th Year	10th Year	20th Year	24th 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.	1st year										
2.	3rd year										
3.	5th year										
4.	10th year										
5.	15th year										
6.	20th year										
7.	25th year										
8.	30th year										
9.	34th year(end of mine life)										
10.	34- 37th										

	Year (Post-mining)										

*As a representative example

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

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

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

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

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

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

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

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

(xxxvii) Details of R&R. Detailed project specific R&R Plan with data on the existing socio-economic status of the population (including tribals, SC/ST, BPL families) found in the study area and broad plan for resettlement of the displaced population, site for the resettlement colony, alternate livelihood concerns/employment for the displaced people, civic and housing amenities being offered, etc and costs along with the schedule of the implementation of the R&R Plan should be given.

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

given.

(xxxix) Corporate Environment Responsibility:

a) The Company must have a well laid down Environment Policy approved by the Board of Directors.

b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.

c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.

d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.

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

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

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

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

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

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

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

ANNEXURE -VI

GENERIC TORs FOR AN UNDERGROUND COALMINE PROJECT

(i) An EIA-EMP Report shall be prepared for..... MTPA rated capacity in an ML/project area of.....ha based on the generic structure specified in Appendix III of the EIA Notification, 2006.

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

(iii) A Study area map of the core zone (project area) and 10 km area of the buffer zone (1: 50,000 scale) clearly delineating the major topographical features such as the land use, surface drainage pattern including rivers/streams/nullahs/canals, locations of human habitations, major constructions including railways, roads, pipelines, major industries/mines and other polluting sources. In case of ecologically sensitive areas such as Biosphere Reserves/National Parks/WL Sanctuaries/ Elephant Reserves, forests (Reserved/Protected), migratory corridors of fauna, and areas where endangered fauna and plants of medicinal and economic importance found in the 15 km study area should be given.

(iv) Map showing the core zone delineating the agricultural land (irrigated and un-irrigated, uncultivable land as defined in the revenue records, forest areas (as per records), along with other physical features such as water bodies, etc should be furnished.

(v) A contour map showing the area drainage of the core zone and 25 km of the study area (where the water courses of the core zone ultimately join the major rivers/streams outside the lease/project area) should also be clearly indicated in the separate map.

(vi) A detailed Site plan of the mine showing the proposed break-up of the land for mining operations such as the quarry area, OB dumps, green belt, safety zone, buildings, infrastructure, CHP, ETP, Stockyard, township/colony (within and adjacent to the ML), undisturbed area -if any, and landscape features such as existing roads, drains/natural water bodies to be left undisturbed along with any natural drainage adjoining the lease /project areas, and modification of thereof in terms of construction of embankments/bunds, proposed diversion/re-channelling of the water courses, etc., approach roads, major haul roads, etc should be indicated.

(vii) Original land use (agricultural land/forestland/grazing land/wasteland/water bodies) of the area should be provided as per the tables given below. Impacts of project, if any on the land use, in particular, agricultural land/forestland/grazing land/water bodies falling within the lease/project and acquired for mining operations should be analyzed. Extent of area under surface rights and under mining rights should be specified.

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

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

Area under Surface Rights

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

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

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

(x) Details of mining methods, technology, equipment to be used, etc., rationale for selection of specified technology and equipment proposed to be used vis-à-vis the potential impacts should be provided.

(xi) Impact of mining on hydrology, modification of natural drainage, diversion and channeling of the existing rivers/water courses flowing though the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon.

(xii) One-season (other than monsoon) primary baseline data on environmental quality - air (PM_{10}, $PM_{2.5}$, SO_x, NO_x and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil - along with one-season met data coinciding with the same season for AAQ collection period should be provided.

(xiii) Map (1: 50, 000 scale) of the study area (core and buffer zone) showing the location of various sampling stations superimposed with location of habitats, other industries/mines, polluting sources, should be provided. The number and location of the sampling stations in both core and buffer zones should be selected on the basis of size of lease/project area, the proposed impacts in the downwind (air)/downstream (surface water)/groundwater regime (based on flow). One

station should be in the upwind/upstream/non-impact/non-polluting area as a control station. The monitoring should be as per CPCB guidelines and parameters for water testing for both ground water and surface water as per ISI standards and CPCB classification wherever applicable. Observed values should be provided along with the specified standards.

(xiv) Impact of mining and water abstraction from the mine on the hydrogeology and groundwater regime within the core zone and 10 km buffer zone including long-term monitoring measures should be provided. Details of rainwater harvesting and measures for recharge of groundwater should be reflected in case there is a declining trend of groundwater availability and/or if the area falls within dark/grey zone.

(xv) Study on subsidence including modeling for prediction, mitigation/prevention of subsidence, continuous monitoring measures, and safety issues should be carried out.

(xvi) Detailed water balance should be provided. The break up of water requirement as per different activities in the mining operations, including use of water for sand stowing should be given separately. Source of water for use in mine, sanction of the Competent Authority in the State Govt. and impacts vis-à-vis the competing users should be provided.

(xvii) Impact of choice of mining method, technology, selected use of machinery and impact on air quality, mineral transportation, coal handling & storage/stockyard, etc, Impact of blasting, noise and vibrations should be provided.

(xviii) Impacts of mineral transportation within the mining area and outside the lease/project along with flow-chart indicating the specific areas generating fugitive emissions should be provided. Impacts of transportation, handling, transfer of mineral and waste on air quality, generation of effluents from workshop etc, management plan for maintenance of HEMM and other machinery/equipment should be given. Details of various facilities such as rest areas and canteen for workers and effluents/pollution load emanating from these activities should also be provided.

(xix) Effort be made to reduce/eliminate road transport of coal inside and outside mine and for mechanized loading of coal through CHP/ Silo into wagons and trucks/tippers.

(xx) Details of various facilities to be provided to the workers in terms of parking, rest areas and canteen, and effluents/pollution load resulting from these activities should also be given.

(xxi) The number and efficiency of mobile/static water sprinkling system along the main mineral transportation road inside the mine, approach roads to the mine/stockyard/siding, and also the frequency of their use in impacting air quality should be provided.

(xxii) Impacts of CHP, if any on air and water quality should be given. A flow chart showing water balance along with the details of zero discharge should be provided.

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

(xxiv) Greenbelt development should be undertaken particularly around the transport

route and CHP. Baseline data on the health of the population in the impact zone and measures for occupational health and safety of the personnel and manpower for the mine should be submitted.

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

(xxvi) Details of R&R. Detailed project specific R&R Plan with data on the existing socio-economic status of the population (including tribals, SC/ST, BPL families) found in the study area and broad plan for resettlement of the displaced population, site for the resettlement colony, alternate livelihood concerns/employment for the displaced people, civic and housing amenities being offered, etc and costs along with the schedule of the implementation of the R&R Plan should be given.

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

(xxviii) Corporate Environment Responsibility:

a) The Company must have a well laid down Environment Policy approved by the Board of Directors.

b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.

c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.

d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.

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

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

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

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

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

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

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

ANNEXURE-VII

GENERIC TORs FOR AN OPENCAST-CUM-UNDERGROUND COALMINE PROJECT

(i) An EIA-EMP Report would be prepared for a combined peak capacity of .....MTPA for OC-cum-UG project which consists of .... MTPA in an ML/project area of ..... ha for OC and .... MTPA for UG in an ML/project area of ..... ha based on the generic structure specified in Appendix III of the EIA Notification 2006.

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

(iii) The ToRs prescribed for both opencast and underground mining are applicable for opencast – cum-underground mining.

***

ANNEXURE-VIII

Email **rb.lal@nic.in**

Approval of MoM of EAC (coal Mining) held in January, 2020.

From : navin chandra <navinchandrarrl@yahoo.com> Fri, Feb 07, 2020 04:49 PM
Subject : Approval of MoM of EAC (coal Mining) held in January, 2020.
To : National Informatics Centre (NIC) <rb.lal@nic.in>
Reply To : navin chandra <navinchandrarrl@yahoo.com>

Dear Dr. R.B. Lal,

I have gone through the Minutes of the Meeting of EAC (Coal Mining) held in January 2020. The Minutes are in order and ready to beuploaded on the website of the MoEF&CC.
Regards,

yours sincerely,

(NAVIN CHANDRA)

Dr. Navin Chandra,
Vice Chancellor, IES University, Bhopal
Chairman, Coal Mining & Thermal Power,
MoEF&CC, GOI, New Delhi.
Ex-Director General MPCST, Bhopal,
(Retd.) Director (Actg.), CSIR-AMPRI, Bhopal
Member, RC, CSIR-AMPRI, Bhopal.
Phone (Res.) 91-755-2454600
navinchandrarrl@yahoo.com, navinchandraampri@gmail.com

ANNEXURE-IX

PARTICIPANTS IN ~~55nd~~ 52nd EXPERT APPRAISAL COMMITTEE (EAC) (THERMAL & COAL MINING) MEETING HELD ON 24th January, 2020. ON COAL SECTOR PROJECTS.

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

****

Annexure R/6

सत्यमेव जयते

No. J-11015/109/2003-IA (M)
Government of India
Ministry of Environment, Forest and Climate Change
Impact Assessment Division
*****

Indira Paryavaran Bhawan,
Jorbagh Road, N Delhi - 3
Dated: 28th February, 2020

To,

The Head of Department (Environment & Forest),
M/s Central Coalfields Limited,
Darbhanga House,
Ranchi - 834029 (Jharkhand)
Email: envccl@yahoo.com

Sub: Amrapali coal mining project of 12 MTPA in an area of 619.87 ha (reduced from 1426.08 ha) of M/s Central Coalfields Limited, located in Tehsil Tandwa, District Chatra (Jharkhand) - Revalidation of Environmental Clearance and Amendment in EC on Ministry's Notification dated 6th April, 2018- reg.

Sir,

This has reference to your online proposal no. IA/JH/CMIN/75225/2018 on 6th June, 2018, on the above mentioned subject.

2. The Ministry of Environment, Forest and Climate Change has considered the proposal for revalidation of environmental clearance to the project for Amrapali coal mining project of 12 MTPA of M/s Central Coalfields Limited in an area of 619.87 ha (reduced from 1426.08 ha) located in Tehsil Tandwa, District Chatra (Jharkhand).

3. The proposal was considered by the Expert Appraisal Committee (EAC) in the Ministry for Thermal & Coal Mining Sector in its 44th meeting held on 24-25 April, 2019 and 24th January, 2020. Public notice was issued in leading newspaper for information of the stakeholder about commencement of Amrapali OCP in The Telegraph, Hindustan and Prabhat Khabar on 7th August, 2018. No comments has been received against the public notice. Site inspection was carried out by Ministry's Regional Office at Ranchi on 14th September, 2018 to monitor compliance status of the conditions stipulated in the said environmental clearance dated 3rd January, 2006. There is reduction in area from 1426.08 ha to 619.87 ha due to involvement of forest land (793.08 ha) wherein PP has obtained Stage-II for 531.64 ha and remaining forest land is still under process. The details of landuse has changed. Land details in Core Zone as per present proposal is as under:

Sr. No.	Item	Total Area (ha)
1	Quarry	425.22
2	Dump	89.16

3	Nala Diversion	3.10
4	Workshop	14.48
5	CHP	6.27
6	Sub Stn. / Office	6
7	Haul Road	34
8	Safety Zone	18.92
9	Vaccant Land	22.72
	Total	**619.87**

4. The Expert Appraisal Committee in its meeting held on 24-25 April, 2019 and 24th January, 2020 has recommended the project for grant revalidation of environmental clearance based on Ministry's Notification dated 6th April, 2018 and amendment in EC due to reduction in area from 1426.08 to 619.87 ha. Based on recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby **accords revalidation of environmental clearance based on Ministry's Notification dated 6th April, 2018 and amendment in EC dated 3rd January, 2006 to the project for Amrapali coal mining project of 12 MTPA in an area of 619.87 ha (reduced from 1426.08 ha) of M/s Central Coalfields Limited, located in Tehsil Tandwa, District Chatra (Jharkhand).**

5. All other terms and conditions stipulated in the environmental clearance dated 3rd January, 2006 shall remain unchanged.

6. This issues with approval of the Competent Authority.

(Dr. R. B. Lal)
Scientist E
(डा. आर. बी. लाल)
(Dr. R. B. LAL)
वैज्ञानिक 'ई'/Scientist 'E'
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
Min.of Environment,Forest and Climate Change
भारत सरकार, नई दिल्ली
Govt. of India, New Delhi

Copy to:

1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi
2. The Secretary, Department of Environment & Forests, Government of Jharkhand, Secretariat, Ranchi
3. The Additional Principal Chief Conservator of Forests, Regional office (ECZ), Ministry of Environment & Forests, Bungalow No. A-2, Shyamali Colony, Ranchi - 834002
4. The Member Secretary, Jharkhand State Pollution Control Board, TA Building, HEC Complex, PO Dhurwa, Ranchi
5. The Member Secretary, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
6. The Member Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi
7. The District Collector, Chatra, Government of Jharkhand

8. Monitoring File 10.Guard File 11.Record File. 12. Notice Board

(Dr. R. B. Lal)
Scientist E

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

SUMMARY RECORD OF 53rd MEETING OF THE EXPERT APPRAISAL COMMITTEE FOR ENVIRONMENTAL APPRAISAL OF COAL MINING PROJECTS CONSTITUTED UNDER THE EIA NOTIFICATION, 2006, HELD ON 20th February, 2020.

The 53rd meeting of the Expert Appraisal Committee (EAC) for Coal mining projects was held on 20 February, 2020 in the Ministry of Environment, Forest and Climate Change at Teesta Meeting Hall, Vayu Wing, First Floor, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi to consider the proposals relating to coal mining sector. The following members were present:

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

Confirmation of Minutes of 52nd meeting of EAC

There being no comments from any of the members of the Committee, minutes of the 52nd meeting of the EAC held on during 24th January, 2020 were confirmed in the presence of the members who had been present in the 53rd meeting of EAC.

Discussions on the Reports of Basundhara (West) Extension OCP of 8.75 MTPA (Agenda No- 52.1, EAC Meeting held on 24.01.2020) as well as Batura OCP of 2.00 MTPA Normative and 3.00 MTPA Peak (Agenda No- 52.3, EAC Meeting held on 24.01.2020), being prepared by CMPDI:

The EAC was informed that CMD, CMPDI vide email dated 19.02.2020 has taken the issues at utmost seriousness and sincerity for improvement of the EIA/EMP Report for the Coal Mining Projects. CPMDI has reported that they have initiated root cause analysis for better preparation of the EIA/EMP Report for the Coal Mining Projects. The EAC deliberated the issues and is of the view that CMPDI shall prepare good quality of the reports and its mitigation measures for sustainable coal mining in the Country.

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

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

Agenda No. 53.1

Expansion of Dudhichua Opencast Coal Mining Project (expansion in production from 15.50 MTPA to 25 MTPA in an ML area 2390.722 ha of M/s Northern Coalfields Ltd located in village Chilkatand District Sonebhadra (Madhya Pradesh) - For Environmental Clearance – reg

[Proposal No.IA/MP/CMIN/8814/2008; F.No. IA-J-11015/381/2008-IA.II(M)]

53.1.1 The proposal is for environmental clearance for Expansion of Dudhichua Opencast Coal Mining Project (expansion in production from 15.50 MTPA to 25 MTPA in an ML area 2390.722 ha of M/s Northern Coalfields Ltd located in village Chilkatand District Sonebhadra (Madhya Pradesh)

53.1.2 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 area is covered under Survey of India Topo Sheet No G44W12 and is bounded by the geographical coordinates ranging from 24°9'12.23"N to 24°9'20.28"N and Longitude: 82°41'3.27''E to 82°40'2.3''E.
(ii) Coal linkage of the project is proposed for Basket linkage mine for pit head power station of NTPC, UPRVUNL in Singrauli Coalfields and Power station in Western/ Northern India through their own MGR system and other consumers by Public Railway.
(iii) Joint venture cartel has been formed- NIL.
(iv) Project does not fall in the Critically Polluted Area (CPA).
(v) Employment generation 3350 nos (as per EPR)
(vi) The project is reported to be beneficial in terms of: The project will be able to supply planned quantity of coal to pit head power stations of NTPC, UPRVUNL in Singrauli Coalfields and power stations in western/ Northern India through their own MGR system and other consumers by public railway system thus meeting the energy needs of the country.
(vii) Earlier, the environment clearance to the project was obtained under EIA Notification, vide Ministry's letter No J-11015/381/2008-IA.II(M) dated:26/12/2019 for 17.5 MTPA in mine lease area of 1752 Ha.
(viii) Total mining lease area as per block allotment is 2390.722 Ha. Mining Plan (Including Progressive Mine Closure Plan) has been approved by the NCL board on 25.11.2017.
(ix) The land usage pattern of the project is as follows:

Pre-mining land use details (Area in Ha)

S. No.	Land Use	Within ML Area	Outside ML Area	Total
1	Agricultural Land	806.913	-	806.913
2	Forest Land	1217.589	-	1217.589
3	Wasteland	-	-	-
4	Grazing Land	-	-	-

5	Surface Water Bodies	-	-	-
6	Settlements	-	-	-
7	Others (Government Land)	366.22	-	366.22
	Total Project Area =	2390.722	-	2390.722

Post Mining:

S. No.	Land use	Land use (ha)				
		Plantation	Water Body	Public Use	Undisturbed	Total
1	External OB Dump	152	-	-	-	152
2	Top Soil Dump	Top Soil has been used immediately in reclamation of dumps.				
3	Excavation	1316	324	-	-	1640
4	Roads	-	-	174	-	174
5	Built-up Area	-	-		-	
6	Green Belt	62.722	-	-	-	62.722
7	Undisturbed Area	164	-	-	-	164
8	Safety Zone / Rationalization Area					
9	Diversion Nala / Canal	-	-	-	-	-
10	Water Body	-	-	-	-	-
11	Staff Colony	-	-	198	-	198
	Total Area =	1694.722	324.00	372.00	-	2390.722

(x) Total geological reserve reported in the mine lease area is 361.34 MT with 320.01 MT mineable reserves. Out of total mineable reserve of 320.01 MT, 288.009 MT are available for extraction. Percent of extraction is 90 %.

(xi) 03 seams with thickness ranging from 1.95m – 25.75m are workable. Grade of coal is G-8 to G-12, stripping ratio 4.61 m^3/t, while gradient is 2^0 to 3^0.

(xii) Method of mining operations envisages by Combination of Dragline and Shovel-Dumper method.

(xiii) Life of mine is 17 years.

(xiv) The project has two external OB dumps in an area of 152 Ha with 90 m height and 134 Mm^3 of OB. Two Internal OB dumps in an area of 1316 Ha with 1483.33Mm^3 of OB are envisaged in the project.

(xv) Total quarry area is 1640 Ha out of which backfilling done in 1316 Ha while final mine void will be created in an area of 324 Ha with a depth of 30m to 40m. Backfilled quarry area of 1316 Ha shall be reclaimed with plantation. Final mine void will be converted into water body.

(xvi) Transportation of coal has been proposed by Rear Dumpers in mine pit head, from surface to siding by Coal Handling Plant (CHP) and at sidings to loading by Silo.

(xvii) Reclamation Plan in an area of 1694.722 Ha, comprising of 152 Ha of external dump, 1316 Ha of internal dump and 62.722 Ha of green belt. In addition to this, an area of 164 Ha, included in the safety zone/rationalization area, has also been proposed for green belt development.

(xviii) 1217.589 Ha of forest land has been reported to be involved in the project. Approval under the Forest (Conservation) Act, 1980 for diversion of forest land for non-forestry purposes has been obtained as follows:-

Area (Ha)	**Stage-1 FC issued vide letter no & date**	**Validity period of FC**
555.00 (UP State)	8-298/87-FC dated 30.07.1990	Valid Upto 30.07.2020
194.78 (MP State)	Letter No. 8-13/93-FC (Vol-III) dated 17.11.2005	Valid Upto 17.11.2035
The remaining forestland of 467.809Ha has Stage I clearance and Stage-II clearance of forest land is under process.		

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

(xx) The ground water level has been reported to be varying between 1.18m (2017) to 21.50m (2019) during pre-monsoon and between 0.55m (2019) to 18.70m (2018) during post-monsoon. Total water requirement for the project is 8183m^3/d.

(xxi) Application for obtaining the approval of the Central Ground Water Authority:- NOC granted vide NOC No. CHWA/NOC/MIN/ORIG/2019/6993 by CGWA.

(xxii) Public hearing for the project of 25 MTPA capacity in an area of 2390.722 Ha was conducted on 08.02.2019 at Virendra Community Hall, Dudhichua Sector-A Colony, Singrauli. Major issues raised in the public hearing and Appropriate action to address the issues raised in the Public Hearing have already been taken/proposed to be taken.

(xxiii) Consent to Operate for the existing capacity was obtained from the State PCB on 29.01.2020 and is valid till 31.12.2020.

(xxiv) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to SPCB and also to MoEF&CC along with half yearly EC compliance report. In general, the results of ambient air quality monitoring data were found within prescribed limits except few aberrations which can be attributed to the specific local conditions during the day of sampling.

(xxv) No court cases, violation cases are pending against the project of the PP.

(xxvi) The project does not involve violation of the EIA Notification, 2006 and amendment issued there under. The coal production from the mine was started from the year 1987 onwards. The coal production, realized from the project, from 1987-88 onwards and the production details of last ten financial years are as under:

Year	EC sanctioned capacity (MTPA)	Actual production (MTPA)	Excess production beyond the EC sanctioned capacity
2008-09	15.50	13.27	NIL

2009-10	15.50	13.31	NIL
2010-11	15.50	10.50	NIL
2011-12	15.50	11.73	NIL
2012-13	15.50	12.23	NIL
2013-14	15.50	11.17	NIL
2014-15	15.50	10.82	NIL
2015-16	15.50	13.08	NIL
2016-17	15.50	14.01	NIL
2017-18	15.50	15.50	NIL
2018-19	15.50	15.50	NIL
2019-20 (Upto Dec-19)	15.50	13.674	NIL

(xxvii) The project involves 580 nos. project affected families. R&R of the PAPs will be done as per R&R policy of Coal India Ltd.

(xxviii) Total cost of the project is Rs.271837 lakhs. Cost of production is Rs. 850.27/- per tonne(2018-19), CSR cost is 2% of the avg. net profit of the company for three immediate proceeding financial year or Rs.2 per tonne whichever is higher, R&R cost is Rs.29.09 crores. Environment Management Cost is Rs.16152.78 Lakhs (As per EPR).

(xxix) Consent to operate (CTO) was obtained from the State Pollution Control Board on 29.01.2020 and is valid till 31.12.2020.

53.1.3 During deliberations on the proposal, the Committee noted the following: -

The proposal is for environmental clearance for Expansion of Dudhichua Opencast Coal Mining Project (expansion in production from 15.50 MTPA to 25 MTPA in an ML area 2390.722 ha of M/s Northern Coalfields Ltd located in village Chilkatand District Sonebhadra (Madhya Pradesh).

Earlier environmental clearance for 12.5 MTPA in an area of 1752 ha was granted on 28th February, 2008 , from 12.5 to 15.5 MTPA on 10th December, 2008. Further environmental clearance for 15.5 to 17.5 MTPA in an area of 1752 ha has been granted on 26th December, 2019.

ToR was granted by Ministry on 1st February, 2018. Public hearing for the project of 25 MTPA capacity in an ML area of 2390.722 ha was conducted on 8th February, 2019 at Virendra Community Hall, Dudhichua Sector A Colony, P.O. Jayant, Singrauli, Madhya Pradesh. Issues related to pollution due to stored mine water, higher fluoride concentration, R & R Compensation, water pollution, air pollution due to transportation of coal, desiliting of ballia nallah, blasting during mining etc were raised during Public Hearing.

A Study of IRR in its ecological dimension to know the pollution load bearing capacity of the surrounding ecosystem has been carried out by Department of Environmental Science & Environment (ESE), IIT (ISM), Dhanbad, Jharkhand.

The most important stream in around is Ballia Nalla. The drainage of the area is controlled by seasonal streams which discharge into Ballia Nalla, which ultimately drains

into Govind Ballabh Pant Sagar in the south. Similarly, towards north, the drainage is through seasonal streams which ultimately join Bijul Nalla.

In the Dudhichua Project area 4 villages are directly affected by mining operations namely Dudhichua, Chilkatand, Karwari and Madhauli, which constitute the core zone. Out of these villages Dudhichua & Karwari villages are fully affected & balance two villages are partially affected.

The base line ambient air quality data were recorded for three months period (From March to June'2016) by selecting core zone & Buffer zone stations.

2390.722 Ha of land already acquired including the forest land of 467.809 Ha. For 467.809 Ha Stage-II is under process and the same proposal has been linked to this EC application.

Mine plan (including Mine Closure Plan) has been approved for 20 MTPA (Normative) and 25 MTPA (Peak) approved by CIL on 25th November, 2017.

Compliance of EC conditions are certified by Regional Office, Bhopal vide its Letter dated 24th October, 2018. The Committee deliberated the compliance stratus.

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

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

53.1.4 The EAC, after detailed deliberation, **recommended** the proposal for grant of environmental clearance to Expansion of Dudhichua Opencast Coal Mining Project (expansion in production from 15.50 MTPA to 25 MTPA in an ML area 2390.722 ha of M/s Northern Coalfields Ltd located in village Chilkatand District Sonebhadra (Madhya Pradesh), under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the following terms & conditions / specific conditions:-

(i) Validity of EC is life of the mine or 30 years whichever is earlier as per EIA Notification, 2006
(ii) The project proponent shall obtain Consent to establish from the State Pollution Control Boards for the proposed peak capacity of 20 MTPA (Normative)/ 25

MTPA(Peak) prior to commencement of the increased production.

(iii) Third party monitoring (by NEERI/CIMFR/IIT) for air quality shall be carried out at identified locations, both ambient and the process area, to arrive at impact of the proposed expansion. The results along with the recommendation shall be presented before the EAC to assess the efficacy and adequacy of pollution control measures.

(iv) Transportation of coal from Coal Handling Plant shall be through covered trucks.

(v) To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers.

(vi) Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at loading and unloading points, etc.

(vii) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.

(viii) Persons of nearby villages shall be given training on livelihood and skill development to make them employable.

(ix) Thick green belt of adequate width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check the dust pollution.

(x) Mechanism for treating stored mine water shall be developed to avoid any ground and surface water contamination

(xi) Mining shall be carried out only by surface miners for the expansion project and silo loading through inpit conveyor should be installed to avoid road transportation in 2 years.

(xii) Ballia, Bijul and other Nallahs linked with this project shall be cleaned quarterly to avoid deposition of silts.

(xiii) Efforts shall be made for utilizing alternate sources of surface water, abandoned mines or else whatsoever and thus minimizing the dependability on a single source.

(xiv) The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 20 MTPA(Normative)/ 25 MTPA(Peak).

(xv) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.

(xvi) A third party assessment of EC compliance shall be undertaken once in three years through agency like ICFRI /NEERI/IIT or any other expert agency identified by the Ministry.

(xvii) Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles

(xviii) Permission of diversion of nallah from concerned statutory authority (if any)

(xix) Compliance of the non-compliance/partial compliance conditions certified by Regional Office, Bhopal vide its Letter No. 3-22/2009(ENV)/807 dated 24th October, 2018. The PP shall take all the mitigation measures and the Action taken report shall be submit the Regional Office of the MoEFCC.

(xx) Project proponent to plant 150,000 nos. of native trees with broad leaves along the villages namely Dudhichua, Chilkatand, Karwari and Madhauli in three years and along transportation route to prevent the effect of air pollution. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer.

(xxi) The activities and fund provisions for CER shall be made as per the guidelines issued by the ministry regarding CER on 1st May, 2018.

(xxii) Project Proponent shall obtain blasting permission from DGMS for conducting mining operation near villages and also explore deployment of rock breakers of suitable capacity in the project to avoid blasting very near to villages. There shall be no damages caused to habitation/structures due to blasting activity.

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

(xxiv) Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table. The intersecting ground water table can only be commence after conducting detailed hydrogeological study and necessary permission from the CGWA. The Report on six monthly basis on changes in Ground water level and quality shall be submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.

(xxv) Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of antisnake venom including all other paramedical safeguards may be ensured before initiating the mining activities.

(xxvi) Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".

(xxvii) The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.

(xxviii) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.

(xxix) 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 as the area falls under Severely Polluted Areas (SPAs)

(xxx) CTE/CTO for the project shall be obtained from the SPCB as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974, and the SPCB shall follow the mechanism/protocol issued by the Ministry vide letter no. Q-16017/38/2018-CPA dated 24th October, 2019 while issuing the CTE/CTO for the project, for improvement of environmental quality in the area.

(xxxi) The green belt of at least 5-10 m width shall be developed in more than 40% (*in place of EAC recommended 33%)* of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.

(xxxii) In addition, the project proponent shall develop greenbelt outside the plant premises such as avenue plantation, plantation in vacant areas, social forestry etc.

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

(xxxiv) The percentage the CER may be atleast 1.5 times the amount given in the OM dated 1st May, 2018 recommended by the EAC and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.

Agenda No. 53.2

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

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

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

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

(i) The project area is covered under Survey of India Topo Sheet No. 73E/13 and is bounded by the geographical coordinates ranging from 23.75108 to 23.75527 N and longitudes 85.86821 To 85.87401 E

(ii) Coal linkage of the project is proposed for Washed Coal(Power) Clean Coal, Reject

use for various destination.

(iii) Proposed linkage for washed coal – SAIL, RINL- BSCS(Bokaro), DSP (Durga), RSP(Rourkela steel plant), Bhilia steel plant, V.S.P.S(Visakhapatnam steel plant) etc. Proposed linkage for washed Coal Power DVC, SAIL, NTPC- C.T.P.S (chandrapura), K.P.S.h(Koderma), BPSCL (SAIL-DVC), TANDA(NTPC), UCR (Uchahar-NTPC), DADRI(NTPC), DSP(DURGAPUR), Bhilai Steel plant, R.S.P etc.

(iv) Joint venture cartel has been formed- No.

(v) 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.

(vi) Employment generation: to 1320 persons will be provided from the project.

(vii) The project is reported to be beneficial in terms of Social, Environment, and Financial

(viii) This is new project for which fresh Environment Clearance has been applied with proposal no. IA/JH/CMIN/77799/2018

(ix) The plan for washery has been approved by CCL board 469th (No. 1 of 2019) meeting held on 01&02/02/2019. And communicated vide no. CS/BM/469/2019/151 dtd. 05/03/2019.

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

Pre-mining (Washery) land use details

(Area in Ha)

S. No.	Land Use	Within ML Area	Outside ML Area	Total
1	Agricultural Land	2.97	0.00	2.97
2	Forest Land	0.00	0.00	0.00
3	Wasteland	8.36	0.00	8.36
4	Grazing Land	0.00	0.00	0.00
5	Surface Water Bodies	0.00	0.00	0.00
6	Settlements	0.00	0.00	0.00
7	Others (Specify)	0.00	0.00	0.00
	Old Excavation Area (East Quarry)	0.00	0.00	0.00
	Old Excavation Area (West Quarry)	0.00	0.00	0.00
	Old OB Dumps	0.00	0.00	0.00
	Roads & Mine Infrastructure	0.00	0.00	0.00
	R & R Colony	0.00	0.00	0.00
	Staff Colony	0.00	0.00	0.00
	Green Belt	0.00	0.00	0.00
	Balance Area	0.00	0.00	0.00
	Total Project Area =	11.33	0.00	11.33

(xi) Life of mine (Washery) is 18 years.

(xii) Transportation of coal for raw coal has been proposed from Kathara OCP, Govindpurph-II proposed washery.

(xiii) Land use of New Kathara Coking Coal Washery Contains 0.66 Ha of green belt a part from 4.99 Ha of main plant, 5.68 Ha of stock Pile, loading bunker , dumping

reject site, slurry pond etc. Block Plantation will be developed around the Washery area of a strip of 3 m. Plantation will be done in consultation with State Forest Department.

S. No.	Total Area	Total No. of saplings required	Average rate of 1 to 2 year old saplings (Rs.)	Total cost of saplings @ Rs. 2200 per sapling including maintenance for 4 years
Green Belt Development				
Roadside Plantation upto 3 kms from the proposed washery:				
1	3 Kms	2X300= 600	2150	12,90,000
Block Plantation around washery:				
2	0.66 Ha	1650	110	1,81,500
		Total		14,71,500 say 15 Lakhs

(xiv) The amount Rs.15 Lakh has been allocated as green belt development in Air pollution control measure head. Time line: green belt is proposed to be developed within 4 years.

(xv) No forest land is involved

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

(xvii) The ground water level has been reported to be varying between 5.6 m to 11.54 m during pre-monsoon and between 1.48 m to 6.9 m during post-monsoon. Total water requirement for the project is1869 KLD.

(xviii) Application for obtaining the approval of the Central Ground Water Authority for New Kathara Coking Coal Washery has been submitted on 11th February, 2020.

(xix) Public hearing for the project of 3 MTPA capacity in an area of 11.33 ha was conducted on 16/10/2019 at Officer Club Kathara Area, CCL, PO-Kathara District Bokoro. Major issues raised in the public hearing include employment, Electricity, Pollution control, drinking water, health etc.

(xx) This is a new project. Consent to operate will be applied after issuance of Environment Clearance.

(xxi) No River/nalla is flowing within boundary of lease.

(xxii) Regular monitoring of ambient air quality is being carried out on fortnightly basis.

(xxiii) No court cases, violation cases are pending against the project of the PP.

(xxiv) The project does not involve violation of the EIA Notification, 2006 and amendment issued thereunder. The coal production from the washer is yet to start.

(xxv) The project involves no project affected families. No R&R of the PAPs will be required.

(xxvi) Total cost of the project is ₹ 26950 lakhs. Cost of production is ₹ 2978/- per tonne., CSR cost is ₹ 2 per tonne,R & R cost is Rs Nil. Environment Management Cost is Rs. 1.7 crores (Capital); Rs. 0.5 Crores (Recurring) and Corporate Environment Responsibility (CER) is Rs. 4.04 Crores.

53.2.3 The EAC during deliberation noted the following: -

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

Public hearing for the project of 3 MTPA capacity in an area of 11.33 ha was conducted on 16/10/2019 at Officer Club Kathara Area, CCL, PO-Kathara District Bokoro. The PH was chaired by Director, District Village Development Board, Bokaro.

There is no forest land involved in the project area. PP committed to plant 1 lakh trees in next 10 years and submitted the undertaking for the same.

The proposed site of washery is in the mining lease of Kathara Opencast Mining Project of the same project proponent and the linkage of coal (input coal) is from Kathara OCP and Govindpur Ph II OCP.

Values of PM10 are reported to be high. PP has presented mitigation measures to reduce PM10 in details. The Committee deliberated the issues.

53.2.4 The EAC, after deliberation observed that there are various lacunae in the proposal in submission of project proponent and details in Form#2 on parivesh portal is not being filled properly. The EAC, after detailed deliberations **decided to return the proposal in its present form** and have asked for clarification/inputs, in respect of the following:-

(i). Either PP shall either revise the Mine Plan of Kathara OCP and shall be valid environmental clearance as the proposed site is in OCP itself or area proposed for washery shall be kept outside Mine Plan of Kathara OCP and demarcated properly.
(ii). Brief Compliance of each ToR conditions and further referencing for details of compliance shall be provided correctly.
(iii). Form#2 on Parivesh should be filled with all details and correct information. For example, total wastewater generation is 70000 KLD and recycling is also 7000 KLD. Manpower requirement is 1 Lakh which seems to be incorrest as this project is only a washery. Correct figure should be incorporated in Form#2.
(iv). Provide fresh /latest characteristics of raw coal sample analysis (% of ash/moisture etc) as data of 2015 is enclosed in EIA/EMP Report.
(v). Traffic Assessment study with photographs of road and air pollution modelling due to increase traffic along with present of habitation shall be produced before EAC. High tonnage trucks should be considered to reduce the number of trucks.
(vi). Values of PM10 are reported to be high. PP shall be present mitigation measures to reduce PM10 in details accordingly.
(vii). Explore the possibility of conveyor belt for transportation of coal from mine pit to washery.
(viii). Ground Water Recharge Estimation of buffer zone shall be done as per guidelines of GEC 2015 instead of 1997 guidelines.
(ix). Air Quality modelling of pollutant PM2.5, SOx and NOx shall be submitted vis-à-vis its impacts/mitigation measures.
(x). Permission of extraction of ground water intersection/extraction from Central Ground Water Authority shall be taken.

(xi). Details of hazardous waste generation (if any) during washery operations and further handling/disposal shall be provided in details.

(xii). Proposed plan for development of green belt shall be provided with fund allocated and year wise plantation plan.

(xiii). Utilization of washery rejects in power plant shall be proposed accordingly plan for utilisation should be provided. EAC insisted that PP must follow up Ministry of Coal for finalisation of coal washery rejects policy.

(xiv). Surface water quality of stored mine water shall be analysed and to be presented.

(xv). Water balance considering usage of only stored mine water shall be presented. No other surface or ground water shall be used.

(xvi). The activities and fund provisions for CER shall be made as per the guidelines issued by the ministry regarding CER on 1st May, 2018.

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

Agenda No.53.3

Ramagundam Opencast-III Expansion-II Coal Mine Project from 6.30 (Peak 6.80) MTPA to 8.82 (Peak 9.52) MTPA in mine lease area of 2070.10 ha M/s Singareni Collieries Company Limited located near Jallaram Village Mandal Kamanpur District Peddapalli (Telangana) - Environmental clearance under the provision of clause 7(ii) of EIA Notification, 2006 - reg.

[Proposal No. IA/TG/CMIN/120211/2019;F.No.J-11015/43/2014-IA.II (M)]

53.3.1 The proposal is for grant of Environmental Clearance Ramagundam Opencast-III Expansion-II Coal Mine Project from 6.30 (Peak 6.80) MTPA to 8.82 (Peak 9.52) MTPA in an ML area of 2070.10 ha M/s Singareni Collieries Company Limited located near Jallaram Village Mandal Kamanpur District Peddapalli (Telangana), under the provision of clause 7(ii) of EIA Notification, 2006

53.3.2 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. 56N/10 and is bounded by the geographical co-ordinates ranging from North latitude 18°40'57" to 18°42'46" and East Longitude 79°29' 58" to 79°34'15".

(ii) Coal linkage of the mine is proposed as per Basket Linkage.

(iii) Joint venture cartel has been formed - Not Applicable.

(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, Permanent / Contractual employment to about 2330 persons out of which about 1780 permanent and 550 contractual (men on roll) will be provided from the project

(vi) The project is reported to be beneficial in terms of socio-economic and improving living standards.

(vii) Earlier, Environment clearance to the Mine: Environmental Clearance was obtained from MoEF&CC vide Lr. No J-11015/43/2013-1A.II(M), dated 11th May,2015 for a rated capacity of 6.30 MT(6.8 MT peak) in mine lease area of 2070.10 ha.

(viii) Ramagundam Opencast-III Expansion Phase-II Project is covered under two mining leases.

a. 1162.76 ha of Lease area is covered in 3rd Renewal of South Godavari Mining Lease" for an extent of 6848 ha granted vide G.O.Ms. No. 2 by Energy (PR.I) department, dt. 12.01.2015 and valid up to 31.12.2034.

b. 644.60 ha is covered in "South Godavari Additional Mining lease" of 1554 ha granted vide G.O.Ms No.201, Energy (PR.I) department, dated: 31.07.2008 and valid up to 16.09.2025.

c. LoI for 262.74 ha obtained from the State Government.

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

Pre-mining land use details (Area in ha)

Land owner hip	Land use	Extent ha)
Tenancy/Private Land	Agricultural	1532.43
	Grazing	54.05
	Roads	4.17
	Village	64.58
	Sub Total	1655.23
Government Land (Non- Forest)	Agriculture Land (Govt Assigned) - 55.38	109.59
	Agriculture land (Govt Land) - 54.21	
	Township	24.37
	Grazing /other	54.11
	Barren	85.68
	Water bodies	141.12
	Sub Total	414.87
Forest		0.00
Grand Total		2070.10

Post Closure Land Use Details (Area in ha)

Sl. No.	Type	Plantation	Water Body	Public/ Company Use	Agricultural land	Total
1	Excavation/Quarry Area: ha	--				--
	a. Backfilled Area	558.41				558.41
	b. Excavated Void		671.00			671.00
	Sub-Total	558.41	671.00			1229.41
2	External Dump	474.50				474.50
	Sub-Total	474.50				474.50
3	Safety Zone /Rationalisation Area					
	a. Safe barrier & drain along the quarry	72.44	13.11	23.85	49.84	159.24
	Roads			14.10		
	Garland drains & Settling ponds		13.11			
	Berm			8.01		
	Railway Track			1.74		
	b. Safe barrier & drain along the external dump	31.16	4.05	10.49	31.50	77.20

	Roads			5.63		
	Garland drains& Settling ponds		4.05			
	Toe-wall			4.05		
	Railway Track			0.81		
4	Sub-Total	103.60	17.16	34.34	81.34	236.44
5	Diversion of nallah		33.71			33.71
6	Road & Infrastructure area (Service Buildings and CHP)			8. 62	62.57	71.19
7	Embankment	24.85				24.85
	Total	1161.36	721.87	42.96	143.91	2070.10

(x) Total geological reserves reported in the mine lease area are 317.96 Mt with 235.14 Mt mineable reserves. Out of this total mineable reserves 223.94 Mt are extractable, out of which 117.36 Mt were already extracted by UG and OC mining till the base date and 106.58 Mt are available for extraction by OC Mining. Percent of extraction is 70.43 %.

(xi) 9 seams viz., 1A1, 1A3, 1, 2Top, 2Bot, 3B, 3A, 3, 4 are workable. Grade of coal ranges from G-9 to G-11 and Stripping ratio is 7.89 m3 of OB per 1 tonne of coal, while gradient is varying from 1 in 5.5 to 1 in 12.

(xii) Method of mining operations envisages is by opencast method.

(xiii) Life of mine is 13 years from 2018-19 (as per approved Mining plan).

(xiv) The Project has one external OB dump in an area of 474.50 ha with 120m height and 449.03 Mm^3. One internal dump in an area of 558.41 ha with 899.03 Mm^3 with 120m height is envisaged in the project.

(xv) Total quarry area is 1229.41 ha out of which backfilling will be done in 558.41 ha and 671 ha will be left as water body with a depth of 280 m. Backfilled quarry area of 558.41 ha shall be reclaimed with plantation.

(xvi) Transportation of coal has been proposed by belt conveyors up to pit head, from surface to railway siding (RG OC –III CHP) by belt conveyors and from there by railway siding to end use by rail.

(xvii) Reclamation Plan in an area of 2070.10 ha, comprising of 474.50 ha on external dump, 558.41 ha of internal dump, 236.44 ha of the safety zone/rationalization/others area. In addition to this, an area of 24.85 ha of the embankment area has also been proposed for green belt development will be reclaimed during the post closure stage. So, the cumulative plantation at Post closure stage is 1161.36 ha.

(xviii) No forest land is involved in the project.

(xix) No Ecologically sensitive area is in the buffer zone of the project boundary.

(xx) The ground water level is reported to be varying between 1.97 m to 10.80 m during pre-monsoon and between 1.50 m to 9.96 m during post-monsoon. Total water requirement for the mine is about 5740 KLD.

(xxi) Ground Water Clearance was issued by the State Government vide Memo Lr. No.3050/T/2014 dt.20.11.2014.

(xxii) Public hearing was conducted on 06.08.2014 in the premises of GDK-8 Incline (Opposite to mines Rescue station) Jallaram village, Kamanpur mandal of karimnagar distict, Telangana state.

(xxiii) Consent to Operate was obtained vide order No. 16052196979 dt. 01/10/2016 by TSPCB, Telangana state and is valid up to 31th March, 2021.

(xxiv) No River/ major Nallahs/Streams are flowing across the boundary of the mining lease. However, a seasonal Jallaram Nallah is flowing along the south West to South East of the Mine which will be diverted as per the approved Mining plan.

(xxv) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to State Pollution Control Board 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 the specific local conditions during the day of sampling.

(xxvi) No court cases, violation cases are pending against the project of the PP.

(xxvii) The project does not involve violation of the EIA Notification, 2006 and amendment issued there under.

(xxviii) The coal production from the mine was started from the year 2015-16 onwards. No excess production of coal from the sanctioned capacity has been realized since the commencement of mining operations.

(xxix) The coal production, realized from the project, from 2015 onwards, is as furnished here under:

Year of Production	Sanctioned EC Capacity "Mt"	Actual Coal Production "Mt"
2015-16	6.80	5.00
2016-17		6.01
2017-18		6.80
2018-19		6.35

(xxx) No additional PDFs are involved in present proposal and further R&R is not required.

(xxxi) The additional capital cost for expansion is about 91.64 Cr, the cost of production as on Feb' 2019 is Rs.3592 per tonne. CSR cost is 2% of average net profits of the company during last three years which will be allocated for CSR at company level. An amount of Rs.21.53 Crores has been provided towards Environmental related cost.

(xxxii) Consent to Operate was obtained vide order No. 16052196979 dt. 01/10/2016 by TSPCB, Telangana state and is valid up to 31th March, 2021.

52.3.6 During deliberations on the proposal, the EAC took note

The proposal is for grant of Environmental Clearance to Ramagundam Opencast-III Expansion-II Coal Mine Project from 6.30 (Peak 6.80) MTPA to 8.82 (Peak 9.52) MTPA in mine lease area of 2070.10 ha M/s Singareni Collieries Company Limited located near Jallaram Village Mandal Kamanpur District Peddapalli (Telangana) under clause 7(ii) of EIA Notification, 2006

Public hearing was conducted on 06.08.2014 in the premises of GDK-8 Incline (Opposite to mines Rescue station) Jallaram village, Kamanpur mandal of karimnagar distict, Telangana state.

Earlier, Environment clearance to the Mine: Environmental Clearance was obtained from MoEF&CC vide Lr. No J-11015/43/2013-1A.II(M), dated 11th May,2015 for a rated capacity of 6.30 MT(6.8 MT peak) in mine lease area of 2070.10 ha

Mining Plan (II Revision) including Mine Closure Plan for the project (8.82 MTPA (N) / 9.52 MTPA (P) in mine area of 2070.10 ha has been approved by Ministry of Coal vide its letter dated 17th June, 2019.

Compliance of EC conditions are certified by Regional Office, Chennai vide its Letter dated 23rd August, 2019. The Committee deliberated the compliance stratus and observed various non-compliance of EC conditions as identified by Regional Office, Chennai.

Further, PP submitted vide its letter dated 20th February, 2020 in pursuant to the OM dated 15th September, 2017. With respect to the clause 3 of para 3 of the said OM, it is to submit that deployment of Surface Miner is not technically feasible due to the following reasons given under:

Surface miner is an equipment which move on the coal face and cuts with the cutter drum provided at the bottom of the machine. The coal seam is required to be continuous, flat and easily cuttable for effective deployment of the machine. It is designed for thick seams to cut the coal layer by layer.

1. RG OC-III project is extraction of the coal in remnant pillars of the erst while underground mine. The coal seams are developed as 'board and pillar' where gallaries are driven in the solid coal and the pillars formed are under extraction by opencast mining in the project. As such there will not be continuity of coal on the working bench. Hence surface miner, which require continuity for its movement cannot be deployed. There is danger of bogging of the surface miner in the developed galleries. The photograph showing the exposed coal bench with intermittent gallaries of an underground mine converted to opencast is enclosed.

2. Surface miner require a large operating space for movement of the machine. The project is proposed for extraction of multiple seams numbering 9. Hence the area available for extraction of coal in each seam will be less at any one point of time. Hence there will not be sufficient working space for deployment of surface miner as the coal extraction is carried at multiple locations spread over in different parts of the mine.

3. The gradient of the coal seams is high i.e around 1:5.5 in most of the quarry. Surface miner is suitable for deployment in seams of mild gradient of 1:8.

4. Further six of the 9 seams are less than 1.5 m thickness. This coupled with steep gradient is not suitable for deployment of surface miner as it will result in huge contamination of coal.

5. For excavation of OB in the lower benches of the mine , dragline is deployed in this project, which is environmentally friendly (transportation of the material is avoided) where the OB on the immediate bench of the coal is directly dumped in the de-coaled area. However, this technology limits the available coal exposure at a time to a minimal extent, which is not suitable for deployment of surface miner. It is to submit that the advantage may gain by the deployment of surface miner will now be achieved through the dragline.

The appropriate technology for extraction of coal, considering all the aspects is critically

examined at the time of the preparation of the mining plan. The mining plan of RGOC-III is approved by the MoC, GoI with extraction of coal by shovel dumper combination after examining all technical matters thoroughly by the Technical committee and Standing committee constituted for approvals of the mining plans.

Further PP submitted the Compliance to Office Memorandum J11015/224/2015.-IA.II dated 15.09.2017

Condition	Status of Compliance
Compliance status of EC conditions monitored by the concerned Regional Office of this Ministry is found to be satisfactory.	Compliance status of EC conditions was monitored by the Regional Office Chennai on 16.07.2019, the report was issued vide F.No.EP/12.1/52/A.P/1458 dated 23.08.2019. The compliance of the observations was sent to RO, Chennai, which in turn was forwarded to MoEF&CC vide e-mail dated 9th Dec, 2019 by RO. The Committee noted that there are non-compliances of earlier EC.
Other statutory requirements like Consent to Establish/ Operate, Clearance from CGWA, approval of Mining Plan and the Mine Closure Plan, Mine Closure Status Report as applicable, Forest Clearance, etc are satisfactorily fulfilled.	Consent to establishment: Consent Order for Establishment was granted vide order No.78/TSPCB/CFE /RORGM/ HO/2015, dt. 09.11.2015 by TSPCB, Telangana state. Consent to operate: Consent Order for Operation was ranted vide order No.16052196979, dated 01st October, 2016 by TSPCB, Telangana state valid up to 31.03.2021.
Other statutory requirements like Consent to Establish/ Operate, Clearance from CGWA, approval of Mining Plan and the Mine Closure Plan, Mine Closure Status Report as applicable, Forest Clearance, etc are satisfactorily fulfilled.	Ground water clearance: Issued by the State Government vide Memo Lr. No. 3050/T/ 2014 dt.20.11.2014. Mining plan including mine closure plan: The Mining Plan (Including Mine Closure Plan) (2nd Revision/Modification) for RG OC-III Expn Mine was approved by MoC, GoI Vide. O.M.No.38011/12/2017-PCA, dated 17th June, 2019. Forest clearance: No Forest Land is involved in this project.

The proposal is for one time capacity expansion of up to 40% in the existing coal mining operation.	This proposal is for one time capacity expansion from 6.3 (Peak 6.8) MTPA to 8.82 (Peak 9.52) MTPA in the existing coal mining operations.
There is no additional mine lease area involved	No additional mine lease area is involved.
There is no change in the mining method (underground to opencast).	There is no change in the mining method.
Details of the court cases, if any, pending in any court of Law against the project as well as directions passed by any court relating to the project shall be furnished by the proponent directly to the Environment Appraisal Committee (EAC). The EAC will deliberate upon the same and the gist of the discussion will be reflected in the minutes of the EAC meetings.	There is no court case pending in any Court of Law against the project.

Two public roads are proposed for diversion i.e. from the mine boundary at west side of the mine (connecting Peddapalli and Manthini and Godavarikhani Town – 1.4 km) and 8 incline colony to Godavrikhani via Vakilpally mine and GDK 11 Incline. – 3.2 km

53.2.4 The EAC, after detailed deliberation agreed the proposal @ 20% expansion, however while deliberating the compliance of EC which is very poor and as mentioned in Certified Compliance of RO, MoEFCC Chennai, there are 10 number of non-compliances reported during visit.

The EAC noted that PP has not yet obtained the permission for diversion of nalla (Jallaram nallah at two different places and road (Two public roads are proposed for diversion) involved in the proposal. Alternate access should be provided accordingly for public use before diversion of the road. Effect of diversion of jallaramvagu on river Godavari at siripuram village needs to be studied. Also height of OB dump is proposed to be about 120 above ground level, necessary permission is desired from DGMS for this. The Committee also noted that there are schedule –I species present in the study area. PP shall take the approval of the Wildlife conservation plan. The PP is operating the mine without the said approval.

The Committee deliberated the issues and **deferred** the proposal. The proposal may be considered after submission of the above necessary compliances.

Agenda No.53.4

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

[Proposal No. IA/CG/CMIN/9723/2008; F.No. J-11015/958/2007-IA.II(M)]

53.4.1 The proposal is for Environmental Clearance of proposed Expansion of Coal Washery from 1.2 MTPA (Dry Process) to 3.6 MTPA (By Adding 2.4 MTPA Through Wet Process) of M/s Maheshwari Coal Beneficiation and Infrastructure Pvt Ltd located in village Parasda Sirgitti Industrial Areas Tehsil & District Bilaspur (Chhattisgarh).

53.4.2 The EAC during deliberations noted the following:-

The proponent was unable to present the proposal in absence of consultant who has prepared the EIA/EMP Report. Project proponent has requested the EAC to present the proposal with new consultant. Further, earlier Consultant of PP in its letter dated 20th February, 2020 has submitted NOC to present the proposal by other Accredited Consultant.

In view of above, the **proposal was returned** as it is for the needful by the project proponent and submission of revised report.

Agenda No. 53.5

Niljai Expansion (Deep) OC, with Expansion in Production Capacity from 3.50 MTPA to 4.90 MTPA in ML area of 1761.22 ha of M/s Western Coalfields Limited, located in Village Niljai & Ukni, Tehsil Wani District Yavatmal (Maharashtra) - For consideration of Environmental clearance under the provision of clause 7(ii) of EIA Notification, 2006 – reg.

[Proposal No IA/MH/CMIN/135418/2020; F.No. J-11015/261/2011-IA-II(M)]

53.5.1 The proposal is for obtaining Environmental Clearance for Niljai Expansion (Deep) OC involving expansion in capacity from 3.50 MTPA to 4.90 MTPA in area of 1761.22 ha of M/s Western Coalfields Limited located in Wani Tehsil of Yavatmal district (Maharashtra), under the provision of clause 7(ii) of EIA Notification, 2006

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

(i) The existing Niljai (Deep) OC has been granted environmental clearance vide ref no. J-11015/261/2011-IA.II (M) dated 12.10.2015 for Production capacity of 3.50 MTPA within existing EC area of 1761.22 ha.
(ii) The project area is covered under Survey of India Topo Sheet No 56M/1 and is bounded by the geographical coordinates ranging from Latitudes: N 190, 57' 48" to N 200, 01' 41" Longitudes: E 790 03' 21" to 790 06' 33" (WGS – 84)
(iii) Coal linkage of the project is from Thermal power plants of MAHAGENCO & Miscellaneous consumers. There is no Joint venture involved.
(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: existing Manpower for the project is 1186 Nos as direct employment. And approx 300 contractual employment will be generate through outsourcing agency

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(vi) This project will bridge the gap (to the extent of the peak production capacity of the project) between demand & supply of non – coking coal for power plants & other bulk consumers from Western as well as Southern part of the country.

(vii) Further CSR fund will be utilized in the 15 Km radius of the project which will add to the overall socio-economic development of the area. The commissioning of the project will create direct & indirect employment.

(viii) The Mining Plan along with Mine closure Plan for Niljai Expansion (Deep) OC was approved by the WCL Board vide its letter ref no WCL/BD/SECTT/BM-315/2019/953 dated 12.10.2019.

(ix) The certified compliance report for existing Environmental Clearance of Niljai (Deep) OC has been obtained from Regional Office, MoEF&CC, Nagpur. Field visit for ascertaining status of compliance of EC conditions was made from RO, MoEF&CC, Nagpur on 24.09.2019. Thereafter, the Certified Compliance Report was issued by the Regional Office of MoEF&CC, Nagpur vide letter no. File No.3-31/2009/(ENV)/5923 dated 27.11.2019.

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

Details of changes in land use is provided below:

Pre-mining land use details

	Land already acquired	Land to be acquired	Total
Tenancy Land	1457.63	198.89	1656.52
Government Land	95.53	9.17	104.70
Total	1553.16	208.06	1761.22

Land Use during Mining

SI No.	**Particulars**	**Land Details (ha)**
1	Quarry area	404.00
2	External OB Dump	315.47
3	Infrastructure including Road and Colony	2.00
4	Colony Area	60.00
5	Bellora Village Rehabilitation	43.00
6	Niljai Village Rehabilitation	26.00
7	Balance Excavation Area	184.64
8	Balance External OB Dump Area	370.73
9	Balance Rationalization / Blasting Area	257.38
10	Balance land for Infrastructure	18.00
11	Balance land for Approach Road / Embankment	80.00
	Total	**1761.22**

Post-mining land use details

Sl. No.	Land use during mining	Land use (ha)				
		Plantation	**Water Body**	**Public use**	**Un-disturbed**	**Total**
1	External OB Dump	587.80	0	0	0	587.80
2	Top soil dump	98.40	0	0	0	98.40

3	Excavation	120.11	468.53	0	0	588.64
4	Roads	0.62	0	0.98	0	1.60
5	Built up area	40.00	0	109.00	0	149.00
6	Green Belt	13.50	0	0	0	13.50
7	Undisturbed Area	217.38	0	0	73.10	290.48
8	Embankment around quarry	10.00	0	15.9	5.90	31.80
	Total	**1087.81**	**468.53**	**125.88**	**79.00**	**1761.22**

(xi) Total extractable reserves has been considered in the project report of Niljai Deep OC (upto 01.04.2016) are 51.37 Mt, out of which 10.05 Mt has been extracted in 2016-17, 2017-18 & 2018-19. Total extractable reserves are 41.32 Mt. percentage of extraction is 95 %. The seam to be worked on is one composite seam. Thickness of Seams to be worked on are given below:-

Coal seam/Parting	Thickness range (m)	
	Minimum	Maximum
Composite Top Section (upper split)	0.20 m (NL-26)	1.99 m (CMWNJ-6)
Parting	0.30 m (NL-26)	1.27 m (MWNJ-8)
Composite Top Section (Middle split)	0.26 m (MWNJ-11)	1.05 m (MWNJ-10)
Parting	1.16 m (MWNJ-15)	3.02m (MWNJ-5)
Composite Top-Section (Lower split/merged)	5.98m (CMWNJ-3)	12.00 m (NL-21)
Parting	2.42m (NL-26)	5.77m (MWNJ-11)
Composite Bottom Section	6.45m (CMWNJ-3)	10.93 m (MWNJ-16)

(xii) Grade of Coal GCV – 4790 Kcal/kg, G-9, stripping ratio 7.93 m^3/t/.

(xiii) Mining operations are undertaken by opencast method with shovel dumper Combination, it will continue during the expansion also

(xiv) Life of mine: 09 years

(xv) The total volume of additional OB proposed to be excavated as on 01.04.2019 is 357.97 Mm3. Simultaneous backfilling is in process. 13.74 Mm^3 OB has been internally dumped. Internal dump is yet to achieve planned height for biological reclamation. Internal dump will be merged with external dump and will reach height of 90 m.

(xvi) 587.80 ha land will be utilized for external dumping. External dump will be merged with internal dump, External dump of neighbouringBellora – Naigaon OC and Ukni OC which would result in saving of 462 ha land from degradation.

(xvii) Total quarry area is 588.64 ha. Out of total quarry area 120.11 ha has been proposed as internal dumping. Final mine void will be created in an area of 468.53 ha with a maximum depth of 200 m. Final mine void will be converted into water body.

(xviii) Transportation of coal in pits by dumpers, from surface to Railway sidings by tippers. Coal will be transported in tarpaulin covered trucks to Ghughus Railway siding. The coal will be transported to Thermal power plants of MAHAGENCO and to Miscellaneous Consumers.

(xix) Reclamation Plan/afforestation plan is for 1087.81 ha. It includes 587.80 ha of external OB dump,98.40 ha of top soil dump,120.11 ha on internal dump, 217.38

ha on undisturbed land, 13.50 ha green beltand 50.62 ha along embankment& infrastructure including along the road.

(xx) No forest land has been reported to be involved in the project.

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

(xxii) The ground water level has been reported to be varying between 4.35 m to 5.90 m during pre-monsoon and between 2.15 m to 3.25 m during post-monsoon (core zone). Total water requirement for the project is 2859 KLD.

(xxiii) NOC for ground water abstraction has been applied vide 21-4/332/MH/MIN/2016 on 26.05.2016. The said proposal has been recommended by Regional Office (CGWB), Nagpur. The formal NOC letter from CGWA, New Delhi is awaited.

(xxiv) Public Hearing has been conducted at Project Site on 29.11.2013 for local affected persons. The Public Hearing was conducted for production capacity 3.50 MTPA and EC area 1761.22 ha of Niljai (Deep) OC. The compliance against issues raised during public hearing along with the fund provision and timeline are provided in Chapter-7 of the EIA-EMP report.

(xxv) Consent to Operate: Renewal of consent to operate for 3.50 MTPA has been approved by MPCB with a validity upto 31.03.2021 in its 19th CAC meeting held on 07.01.2020 against consent renewal application no. MPCB -CONSENT - 0000046121. However, formal issuance of consent letter is awaited.

(xxvi) A water channel flows partly within the mine lease hold boundary (at the south eastern side) and drains into Wardha River and another water channel (garland drain) flows across the mine lease hold boundary

(xxvii) Regular Monitoring Data has been documented. Which is found within permissible limits mostly.

(xxviii) No court cases, violation cases are pending against the project of the PP pertaining to environment

(xxix) The project does not involve violation of the EIA Notification, 2006 and amendment issued thereunder. No excess production of coal from the sanctioned capacity has been realized since inception.

Year	EC sanctioned capacity (MTPA)	Actual production (MTPA)	Excess production beyond the EC sanctioned capacity
2012-13	3.50	3.50	Nil
2013-14	3.50	3.30	Nil
2014-15	3.50	2.65	Nil
2015-16	3.50	3.50	Nil
2016-17	3.50	3.50	Nil
2017-18	3.50	3.50	Nil
2018-19	3.50	3.05	Nil
2019-20 (till 31.11.19)	3.50	1.51	Nil

(xxx) Total cost- Rs 414.1063 Crores.

(xxxi) Provision of Rs 8125.22 Lakhs has been made for the rehabilitation and resettlement for Ukni Village comprising of 1000 PAFs. Baseline Socio-economic survey report (including impact prediction and Rehabilitation action plan) of project affected area of Ukni village, tehsil-Wani District Yavatmal for Niljai expansion deep opencast mine of Wani Area is being carried through a reputed NGO.At present,

baseline survey completed. TILR survey is under progress. After completion of TILR survey & receipt, Rehabilitation Action Plan will be prepared.

53.6.6 During deliberations on the proposal, the EAC took note

The proposal is for grant of Environmental Clearance , under clause 7(ii) of EIA Notification, 2006 Niljai Expansion (Deep) OC, with Expansion in Production Capacity from 3.50 MTPA to 4.90 MTPA in ML area of 1761.22 ha of M/s Western Coalfields Limited, located in Village Niljai & Ukni, Tehsil Wani District Yavatmal (Maharashtra)

Public Hearing has been conducted at Project Site on 29.11.2013 for production capacity 3.50 MTPA and EC area 1761.22 ha of Niljai (Deep) OC

The Mining Plan along with Mine closure Plan for Niljai Expansion (Deep) OC was approved by the WCL Board vide its letter ref no WCL/BD/SECTT/BM-315/2019/953 dated 12.10.2019.

The certified compliance report for existing Environmental Clearance of Niljai (Deep) OC has been obtained from Regional Office, MoEF&CC, Nagpur. Field visit for ascertaining status of compliance of EC conditions was made from RO, MoEF&CC, Nagpur on 24.09.2019. Thereafter, the Certified Compliance Report was issued by the Regional Office of MoEF&CC, Nagpur vide letter no. File No.3-31/2009/(ENV)/5923 dated 27.11.2019.

Earlier, Environment clearance to the Mine: Environmental clearance vide ref no. J-11015/261/2011-IA.II (M) dated 12.10.2015 for Production capacity of 3.50 MTPA within existing EC area of 1761.22 ha.

The proposal for phase 2 i.e. from 4.5 to 4.9 MTPA will be only be considered if PP will use Surface miner for mining activity and inpit conveyor through silo loading for evacuation of coal from pit.

Further PP submitted the Compliance to Office Memorandum J11015/224/2015.-IA.II dated 15.09.2017

Sl.No	Particulars	Present Status	Proposal
1.	Predicted air quality parameters.	Presently air quality parameters are within limits.	An exercise for predicting the air quality level due to the proposed expansion has been carried out through AERMOD which shows that the predicted air quality levels may be marginally higher than the prescribed norms. Additional and Specific control measures have been proposed to maintain the air quality parameters within the prescribed norms.

2.	Coal transportation.	Coal Transportation upto Ghughus Railway Siding is through 9.73 Km Road out of which 7.98 Km of Road is Black Topped and remaining 1.75 Km road is concretized. Coal is transported though tarpaulin covered trucks.	Same will be continued.
3.	Coal mining methodology	Presently mine is operated through Shovel Dumper Combination.	Same will be continued.
4.	Public Hearing	Public Hearing has been conducted on 29.11.2013 at project site based on which EC was secured for 3.50 MTPA for EC area of 1761.22 ha under EIA Notification 2006.	No more area is required for the proposed expansion.
5	Compliance status of EC conditions monitored by the concerned regional office.	Compliance status of existing EC conditions (EC- Oct, 2015) has been monitored by the Regional Office of MOEF&CC, Nagpur vide its letter dated 27.11.2019. Out of total 70 EC conditions there was No Non-Compliance recorded. Seven partially complied conditions against the stipulated EC conditions have been recorded and ATR has been submitted vide letter dated 03.12.2019 against partially complied conditions.	

6.	Other statutory requirements like Consent to Establish/Operate, Clearance from CGWA, approval of Mining Plan & the Mine Closure Plan, mine closure status as applicable, Forest Clearance etc.	Consent to Operate: CTO valid upto 31-03-2021. Clearance from CGWA: Application for grant of NOC for dewatering of Groundwater has been applied vide 21-4/332/MH/MIN/2016 on 26.05.2016. Recommended for grant of NoC. Formal NoC wait from CGWA Approval of mining plan & the mine closure plan: A mining plan has been prepared for the enhancement of production capacity from 3.50 to 4.90 MTPA within the existing EC area of 1761.22 ha and it has been approved by WCL board in its 315th meeting held on 27/28.09.2019 vide letter dated 12.10.2019. The aforesaid mining plan has in-built mine closure plan also. Forestry Clearance: Project does not involves forest land.

It is noted that Maharashtra State Pollution Control Board has approved renewal of Consent to operate upto 31st March, 2021. However, CTO letter has not been issued to project proponent.

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

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

The Committee noted that the report is in compliance for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

53.2.4 The EAC, after detailed deliberation, **recommended** the proposal for grant of environmental clearance to Niljai Expansion (Deep) OC, with Expansion in Production Capacity from 3.50 MTPA to 4.50 MTPA in ML area of 1761.22 ha of M/s Western Coalfields Limited, located in Village Niljai & Ukni, Tehsil Wani District Yavatmal (Maharashtra), under the provision of clause 7(ii) of EIA Notification, 2006 and under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the following terms & conditions / specific conditions:-

(i) The project proponent shall obtain Consent to establish from the State Pollution

Control Boards for the proposed peak capacity of 4.5 MTPA (Peak) prior to commencement of the increased production.

(ii) Transportation of coal from Coal Handling Plant shall be through covered trucks.

(iii) To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers.

(iv) Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at loading and unloading points, etc.

(v) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.

(vi) Persons of nearby villages shall be given training on livelihood and skill development to make them employable.

(vii) Thick green belt of adequate width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check the dust pollution.

(viii) Efforts shall be made for utilizing alternate sources of surface water, abandoned mines or else whatsoever and thus minimizing the dependability on a single source.

(ix) Distance from the mine and OB Dump shall be 150 m away from Wardha river all along the bank of river.

(x) The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 4.5 MTPA (Peak).

(xi) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.

(xii) A third party assessment of EC compliance shall be undertaken once in three years through agency like ICFRI /NEERI/IIT or any other expert agency identified by the Ministry.

(xiii) Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles

(xiv) Compliance of the non-compliance/partial compliance conditions certified by Regional Office, Nagpur vide its Letter dated 27th November, 2019. The PP shall complete all non-compliance/partial compliance conditions in one year and the Action taken report shall be submitted to the Regional Office of the MoEFCC.

(xv) Project proponent to plant 100,000 nos. of native trees with broad leaves along the villages and 50,000 nos of native trees along transportation route to prevent the effect of air pollution in 2 years. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer.

(xvi) The activities and fund provisions for CER shall be made as per the guidelines issued by the ministry regarding CER on 1st May, 2018.

(xvii) Project Proponent shall obtain blasting permission from DGMS for conducting mining operation near villages and also explore deployment of rock breakers of suitable capacity in the project to avoid blasting very near to villages. There shall be no damages caused to habitation/structures due to blasting activity.

(xviii) The Project Proponent shall complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors. State Government shall ensure that the entire compensation levied, if any, for

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

(xix) Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table. The intersecting ground water table can only be commence after conducting detailed hydrogeological study and necessary permission from the CGWA. The Report on six monthly basis on changes in Ground water level and quality shall be submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.

(xx) Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of antisnake venom including all other paramedical safeguards may be ensured before initiating the mining activities.

(xxi) Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".

(xxii) The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.

(xxiii) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.

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

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Agenda No.53.6

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

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

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

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

(i) The existing Yekona-I OC and Yekona-II OC mines have been granted environmental clearance vide letter EC sanctioned vide letter J-11015/175/ 2006-IA.II(M) Dated-17 October, 2006(production capacity- 0.40 MTPA within ML area of 265.50 ha) and letter J-11015/182/2006-IA.II(M) Dated-17 October, 2006 (production capacity- 0.60 MTPA within ML area of 414.56ha) respectively.

(ii) The existing mines are proposed to be amalgamated with increasing in Capacity from 1.0 MTPA to 2.75 MTPA (Normative) and3.44 MTPA (Peak) & Expansion in Land Area from 680.06 ha to 1679.39 ha in Phase-I

(iii) The proposal was granted ToR vide MoEF&CC vide letter no J-11015/381/2015.IA-II (M) dated 06.06.2016 for Amalgamated Yekona I & II OC involving increase in production capacity from 1.00 MTPA to 3.44 MTPA (peak) and increase in ML area from 680.06 ha to 1701.32 ha based on the approved Project Report. MoEF&CC accorded approval for extension of validity of ToR dated 6th June, 2016 for Amalgamated Yekona I & II OC for a period of 1 year i.e. up to 6th June, 2020 vide MoEF&CC letter no J-11015/381/2015.IA-II (M) dated 21.06.2019.

(iv) The project area is covered under Survey of India Topo Sheet No55L/15 & 55L/16and is bounded by the geographical coordinates ranging from Latitudes N 20° 13' 39" to 21° 16' 14" N and longitudes E 78° 55'25" to 78° 58′ 24" E

(v) Coal linkage of the project was for Thermal power plants of MAHAGENCO & Miscellaneous consumers. There is no Joint venture involved

(vi) Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC's vide its OM dated 13th January, 2010 has imposed moratorium on grant of environment clearance

(vii) Employment generation: Required Manpower for the project is 257 Nos(Departmental)

(viii) This project will thus bridge the gap (to the extent of the peak production capacity of the project) between demand & supply of non – coking coal for power plants & other bulk consumer.

(ix) The Project Report (including Mining Plan) of Amalgamated Yekona I & II OC was duly approved by CIL Board for normative capacity of 2.75 MTPA and peak capacity of 3.44 MTPA within area of 1701.32 ha in its 319thmeeting held on 12.08.2015 as

communicated by Company Secretary, CIL vide its letter no. CIL: XI(D):04112:2015:10875 dated 26.08.2015.

(x) Total mining lease area is increased from 680.06 ha to 1679.39 ha. The Mining Plan (including Mine Closure plan) of Amalgamated Yekona I & II OC Mine Phase-I of Majri Area was duly approved by WCL Board for Phase-I in its 315th meeting held on 27th & 28th September, 2019 vide its letter no. WCL/BD/SECTT/BM-315/2019/958 dated 12.10.2019

S.N.	LAND USE	Within ML Area (ha)	Outside ML Area (ha)	Total
1	Agricultural land	1570.31	50.49	1620.80
2	Forest land	--	--	--
3	Waste land/Govt. land	58.59	-	58.59
4	Grazing land	--	--	--
5	Surface water bodies	--	--	--
6	Settlements	--	--	--
7	Others (specify)	--	--	--
	Total	**1628.90**	**50.49**	**1679.39**

(xi) RO, MoEF&CC, Nagpur made field visit of Yekona I & II OC mine for ascertaining status of compliance of EC conditions on 26.06.2019. The Certified Compliance Report was issued by the Regional Office of MoEF&CC, Nagpur vide letter no. EC-1016/RON/2019-NGP/5622 dated 19.08.2019. Subsequently, Action Taken Report on the partial compliances has been submitted to RO,MoEF& CC vide letter no. 150 dated 23.08.2019.

(xii) The Phase-I of Project is only an interim arrangement for working without inclusion of forest land. However, as the forestry clearance is obtained, the mine will continue as per the approved Project Report with total ML Area of 1701.32 ha. Fresh EC will be secured dovetailing the land area of 21.93 ha (total remaining 1701.32 ha as per TOR) as Phase-II. Accordingly, the breakup of land use during mining, post mining land use, Stage-wise land use reclamation and Stage-wise plantation programme are detailed below for total ML area of 1701.32 ha.

(xiii) Pre-mining land use for Amalgamated Yekona I & II OC (Phase-I)

For Amalgamated Yekona I & II OC

Sr No.	LAND USE	Within ML Area (ha)	Outside ML Area (ha)	Total
1	Agricultural land	1590.62	50.49	1641.11
2	Forest land	0.62	--	0.62
3	Waste land/Govt. land	59.59	-	59.59
4	Grazing land	--	--	--
5	Surface water bodies	--	--	--
6	Settlements	--	--	--
7	Others (specify)	--	--	--
	Total	**1650.83**	**50.49**	**1701.32**

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Land Use During Mine:

Sl. No	Particulars	Area (ha)
1.	Quarry/ excavated Area (including existing quarry)	689.20
2.	External OB dump	320.02
3.	Nalla Diversion and existing Nalla& Irrigation Canal	58.35
4.	Residential Colony (Approximately)	10.00
5.	Roads, Road diversion and Barriers due to roads (Approximately)	30.00
6.	Infrastructure and service roads (Approx.)	100.00
7.	Flood protection embankment	44.37
8.	Land for relocation of Marda village	8.00
9.	Railway siding and its Approach road	30.00
10.	Blasting / Safety zone along quarries and external dump	270.00
11.	Rationalization of boundary	141.38
	Total	**1701.32**

Post Mining Land Use details:

S.N.	Land use during mining	Land use (ha)				
		Plantation	Water Body	Public use	Undisturbed	Total
1	External OB Dump	320.02	--	--	--	320.02
2	Top soil dump	--	--	--	--	--
3	Excavation	352.00	337.20	--	--	689.20
4	Roads	5.00	--	25.00	--	30.00
5	Built up area	70.00	--	122.37	--	250.72
5a	Nalla and Canal Diversion	--	58.35	--	--	58.35
6	Green Belt	Included in S. No. 4, 5 & 7				
7	Undisturbed Area	100.00	--	--	311.38	411.38
	Total	847.02	395.55	147.37	311.38	1701.32

(xiv) Total geological reserve reported in the mine lease area is78.62 MT with 67.65 Mt mineable reserve. Extractable reserves are 57.85 Mt. Percent of extraction is 73.58 %.

(xv) There is one composite seam with multiple sub sections Sequence of Coal Seams in the Yekona-I OC and Yekona-II OC blocks are given below. Sequence of Coal Seams in Yekona-I Block:

(xvi) Grade of Coal GCV – 4920Kcal/kg, G8, stripping ratio 1: 7.82 m^3/t

(xvii) Mining operations undertaken by opencast method with shovel dumper Combination and Surface Miner.

(xviii) Life of mine: 25 years

(xix) The project will have two nos. internal dumps in an area of 352.00 ha with Maximum height of 90 m above ground level and quantity of 322.53Mm^3 of OB. A total seven nos of external OB dumps are envisaged including 4 temporary dumps to be rehandled within total area of 320.02 ha and upto the height of 90 m above ground level and quantity of 133.50 Mm^3 of OB (including embankment). 2.42 Mm3 OB will be utilized in construction of Embankment.

(xx) Total quarry area is 689.20 ha. Backfilled quarry area of 352.00 ha shall be reclaimed with plantation. Final mine void will be created in an area of 337.20ha with a maximum depth of 150 m. Final mine void will be converted into water body.

(xxi) Transportation of coal in pits by dumpers, from surface to Railway sidings by tippers. The coal will be transported to Thermal power plants of MAHAGENCO and to Miscellaneous Consumers. Railway Siding is proposed for the project.

(xxii) Reclamation Plan/afforestation plan is for 847.02 ha.It includes 320.02 ha of external OB dump, 352.00 ha of internal dump, 100 ha on undisturbed land and 5 ha along roads & infrastructure.

(xxiii) No forest land has been reported in the Phase-I of the project.

(xxiv) No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been reported with 10 km boundary of the project. The presence of Schedule-I species Great Indian Bustard has been reported within the study area.

(xxv) The ground water level has been reported to be varying between 7.75 to 10.64 m during pre-monsoon and between 4.65 to 8.10 m during post-monsoon (core zone). Total water requirement for the project is 810 KLD.

(xxvi) CGWA NOC: NOC from CGWA has been secured for abstraction of ground water vide its letter CGWA/ NOC/ MIN/ ORIG/ 2019/ 6689 dated 19.11.2019.

(xxvii)Public Hearing has been conducted on 14.06.2019 for proposed conversion of Amalgamated Yekona I & II OCP at Mine Manager Office Premises, Yekona OC, WCL, Tal. Warora, Dist. Chandrapur. The minutes of meeting was received from Maharashtra Pollution Control Board vide letter MPCB/SROC-3929/2019 dated 23.07.2019. The ATR against issues raised during public hearing along with the fund provision and timeline are provided in Chapter-7 of the EIA-EMP report.

(xxviii) The CTE for the Yekona-I OC has been granted by Maharashtra Pollution Control Board vide consent no BO/RO(P&P)/CC-330 dated 13.03.2006. However, mining activities could not be started due to delay in physical possession of land. The application for CTO of Yekona-I OC has been made by Project Proponent on 18.02.2019 for the period of 01.04.2019 to 31.03.2020 (Application no - UAN No. 67296). The application under consideration at Maharashtra Pollution Control Board. The mining operations in Yekona-I OC are likely to be commenced before March'20.

(xxix) The mining operations has been started by 26th October 2017 within the Yekona – II OC in accordance with the EC dated 06.10.2006. The Yekona – II OC mine has been granted CTE by Maharashtra Pollution Control Board vide consent no BO/RO(P&P)/CC-328 dated 13.03.2006 for production capacity of 0.60 MTPA. CTO for Yekona-II OC mine for production capacity of 0.60 MTPA within ML area of 414.56 ha was granted by MPCB vide consent order no:-BO/JD(APC)/EIC No: CH-1781-15/O/CC-6269 dated 12.05.2016 with validity till 31.08.2020.

(xxx) A seasonal nallah flowing in the eastern boundary of the mine will be diverted along the mine boundary. An irrigation canal passing through the project area will also be diverted along the southern boundary of OCP.

(xxxi) NOC from CGWA has been secured for abstraction of ground water vide its letter CGWA/NOC/MIN/ORIG/2019/6689 dated 19.11.2019.

(xxxii)Baseline for Ambient Air Quality has been generated from Oct' 2016 to Dec' 2016 in the Post monsoon season. The results were found to be within prescribed limits. The regular environment monitoring is being done continuously in the core and buffer zone of the project. In continuation with regular environmental monitoring, monitoring at five locations at baseline frequency i.e twice a week has been started

from Jan'2020 and will be continued for twelve weeks. Additional three stations have also been added from Feb'2020

(xxxiii) No court cases, violation cases are pending against the project of the PP pertaining to environment.

(xxxiv) The project does not involve violation of the EIA Notification, 2006 and amendment issued thereunder. No excess production of coal from the sanctioned capacity has been realized in Yekona-I and Yekona-II OC mines since grant of EC in 2006

(xxxv) Details of actual coal production vis-à-vis sanctioned capacity since the inception of mines Yekona-I OC

Financial Year	Sanctioned Capacity as per EC (MTPA)	Sanctioned capacity as per CTO	Sanctioned capacity as per approved Mining Plan	Actual Production	Excess Production Beyond the EC / CTO / Mining Plan Sanctioned Capacity (MTPA)
2006-07 to 2018-19	0.40	Nil	0.40	Nil	Nil

Yekona-II OC

Financial Year	Sanctioned Capacity as per EC (MTPA)	Sanctioned capacity as per CTO	Sanctioned capacity as per approved Mining Plan	Actual Production	Excess Production Beyond the EC / CTO / Mining Plan Sanctioned Capacity (MTPA)
2006-07 to 2017-18	0.60	0.60	0.60	Nil	Nil
2018-19	0.60	0.60	0.60	0.11	Nil

(xxxvi) The project involved 797 project affected families. A Capital provision of Rs. 41.1908 crores has been made in approved Project Report for resettlement of Marda Village.

(xxxvii) Total capital cost of the project is Rs. 745.8313 Crores. Capital cost on Environment management plan is Rs 97.09 Lakhs. Revenue cost on EMP will be 6 Rs/tonne. CSR fund will be utilized in the 15 Km radius of the project which will add to the overall socio-economic development of the area. The commissioning of the project will create direct & indirect employment.

53.6.3 The EAC during deliberations noted the following: -

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

No forest land is involved this proposal.

The existing Yekona-I OC and Yekona-II OC mines have been granted environmental clearance vide letter J-11015/175/ 2006-IA.II (M) for 0.40 MTPA within ML area of 265.50 ha and letter J-11015/182/2006-IA.II(M) for 0.60 MTPA within ML area of 414.56 ha respectively on17th October, 2006.

The proposal was granted ToR vide Ministry's letter no J-11015/381/2015.IA-II (M) dated 6th June, 2016 for Amalgamated Yekona I & II OC involving increase in production capacity from 1.00 MTPA to 3.44 MTPA (peak) and increase in ML area from 680.06 ha to 1701.32 ha based on the approved Project Report. Ministry accorded approval for extension of validity of ToR dated 6th June, 2016 for Amalgamated Yekona I & II OC for a period of 1 year i.e. up to 6th June, 2020 vide MoEF&CC letter no J-11015/381/2015.IA-II (M) dated 21.06.2019.

Public Hearing has been conducted on 14.06.2019 under the chairmanship of Additional District Magistrate for proposed project at Mine Manager Office Premises, Yekona OC, WCL, Tal. Warora, Dist. Chandrapur. The minutes of meeting was received from Maharashtra Pollution Control Board vide letter MPCB/SROC-3929/2019 dated 23.07.2019.

A seasonal nallah flowing in the eastern boundary of the mine will be diverted along the mine boundary. An irrigation canal passing through the project area will also be diverted along the southern boundary of OCP.

Baseline for Ambient Air Quality has been generated from October-2016 to December - 2016 in the Post monsoon season which is not as per Ministry's guidelines

The Project Report (including Mining Plan) of Amalgamated Yekona I & II OC was duly approved by CIL Board for normative capacity of 2.75 MTPA and peak capacity of 3.44 MTPA within area of 1701.32 ha in its 319thmeeting held on 12.08.2015 as communicated by Company Secretary, CIL vide its letter no. CIL: XI(D):04112:2015:10875 dated 26.08.2015.

RO, MoEF&CC, Nagpur made field visit of Yekona I & II OC mine for ascertaining status of compliance of EC conditions on 26.06.2019. The Certified Compliance Report was issued by the Regional Office of MoEF&CC, Nagpur vide letter no. EC-1016/RON/2019-NGP/5622 dated 19.08.2019. Subsequently, Action Taken Report on the partial compliances has been submitted to RO,MoEF& CC vide letter no. 150 dated 23.08.2019

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

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report and public

hearing process. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. Issues raised during the public hearing has been properly addressed in the EIA/EMP report. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

53.6.4 The EAC, therefore, after deliberations observed the following observation and desired that PP should submit the details for further consideration of the project.

(i). PP shall revise the approved mine plan for including proposed peak capacity calendar program of the Mine Plan (including Mine closure Plan)

(ii). Air Quality data of PM10, PM2.5 at certain monitoring stations are high. PP must provide extra mitigation measures to reduce the dust pollution viz-a-viz impact on nearby villages.

(iii). PP shall conduct baseline monitoring for two months on same monitoring station for comparison with the monitoring data (as in EIA)

(iv). Approved Wildlife Conservation Plan for identified schedule I species should be submitted.

(v). PP shall carryout Air Quality modelling for SOx and NOx and report on its impact and mitigation should be prepared

(vi). Permission for disposal of OB dump to create Embankment along with the bank of river shall be taken from concerned authority of state government.

(vii). Permission for diversion of irrigation canal and its impact on hydrogeology shall also be studied.

(viii). The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity.

(ix). The activities and fund provisions for CER shall be made as per the guidelines issued by the ministry regarding CER on 1st May, 2018.

(x). PP shall provide action plan with timeline for partial compliances reported in Certified compliance report by Ministry's Regional Office dated 19th August, 2019.

The Proposal was **deferred**.

Agenda No.53.7

Amrapali Opencast Coal Mine from 12 MTPA to 16.8 MTPA in an ML area of 619.87 ha of M/s Central Coalfields Limited located in District Chatra (Jharkhand) – For Environmental Clearance under Clause 7(ii) of the EIA Notification, 2006.

[Proposal No. IA/JH/CMIN/123390/2019; F.No. J-11015/109/2003-IA. II(M)]

494601/2021/IA_I

53.7.1 The proposal is for Environmental Clearance for Amrapali Opencast Coal Mine project of Amrapali Opencast Coal Mine from 12 MTPA to 16.8 MTPA in an ML area of 619.87 ha of M/s Central Coalfields Limited located in District Chatra (Jharkhand).

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

(i) The project area is covered under Survey of India Topo Sheet No: 73-A/13 and is bounded by the geographical coordinates ranging from 23°51'31'' to 23° 53'38''N latitude 84° 58'35" to 85° 02' 07" E longitude.

(ii) Coal linkage of the project is proposed for generation of Energy Sector for various customers through Basket linkage. At present coal is being transported through Shivpur railway siding. A new railway siding, Amrapali siding adjacent to the mine boundary is under commissioning. In future, it is proposed to dispatch coal through Amrapali railway siding.

(iii) Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC vide its OM dated 13th January 2010 has imposed moratorium on grant of environment clearance.

(iv) Employment generation: The project has given a boost to the economy of the area by providing primary and secondary employment to local people. Total number of permanent & temporary employment is approximately 650.

(v) The project is reported to be beneficial in terms of improvements in Physical Infrastructure; Improvements in Social Infrastructure; Increase in Employment Potential; Contribution to the Exchequer; Meet energy and steel sector requirement; Productive utilization of existing manpower of project.

(vi) Earlier, the environment clearance to the project was obtained under EIA Notification-1994 vide Ministry's letter No J-11015/109/2003-IA.II(M) dated: 03.01.2006for 12 MTPA in project area of 1426.08 Ha. MoEF&CC through its notification vide no: S.O 1530 (E) dt. 16.04.2018 has directed that "The mining projects which were granted EC under EIA notification 1994 and but not obtained EC for expansion/ modernization/ amendment under the EIA notification 2006 shall make an application in Form I within six months from the date of issue of this notification for grant of EC under the provisions of the EIA notification, 2006". EAC(Coal) has recommended for revalidation of the environmental clearance Dated: 03.01.2006, as mandated under the Ministry's Notification dated 6th April, 2018.

(vii) Mining Plan (including Progressive Mine Closure Plan) has been approved by the CCL Board meeting held on 04.11.2019.

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

Pre-mining land use details:

Description	Forest Area in Ha.	Non-Forest Area in Ha.	Total Area in Ha.
Quarry	392.75	32.47	425.22
Dump	60.14	29.02	89.16
Nala	2.85	0.25	3.10
Workshop	14.48	0	14.48
Chp	6.27	0	6.27
Sub Stn./Office	6.00	0	6.00
Haul Road	30.00	4.00	34.00
Safety Zone	4.70	14.22	18.92

Embankment/Garland Drain/ Diversion Of Public Road	14.45	8.27	22.72
Total	**531.64**	**88.23**	**619.87**

Post-mining land use details:

Description	Total Area in Ha	Description	Total Area in Ha
Quarry	425.22	Plantation on backfilled area	271.71
		Void	153.51
Dump	89.16	Plantation on External Dump	89.16
Nala	3.10	Nala	3.10
Workshop	14.48	Industrial Area	26.75
Chp	6.27		
Sub Stn./Office	6.00		
Haul Road	34.00	Haul Road	34.00
Safety Zone	18.92	Plantation on Safety Zone/Green belt	18.92
Embankment/Garland Drain/ Diversion Of Public Road	22.72	Embankment/Garland Drain/ Diversion Of Public Road	22.72
Total	**619.87**	**Total**	**619.87**

(ix) Total geological reserve is 486.50 MTe in Amrapali Block and 203.31 Mtes in Kishanpur Block. The mineable reserve is 114.59 MT, extractable reserve is 114.59 MT. The percent of extraction would be 100 %.

(x) 08 seams with thickness ranging from 1 m – 20 m are workable. Grade of coal is Grade-F, stripping ratio 0.99, while gradient is 3° to 7°.

(xi) The method of mining would be opencast method of mining with Surface miner and shovel-dumper combination.

(xii) The balance life of mine is 9 years.

(xiii) The project has 1 external OB dumps in an area of 89.16 Ha with 60 m height and 16.86 Mm3 of OB. 2 internal OB in an area of 271.71 ha with 109.62 Mm3 of OB is envisaged in the project.

(xiv) Total Quarry area is 425.22 Ha. The final mine void would be in 153.50 Ha with depth an average up to 90 m below GL. Backfilled quarry area of 271.71 Ha shall be reclaimed with plantation. Final mine void will be converted into water body.

(xv) Transportation of coal has been proposed by dumper from mine pithead, from surface to siding by tipping trucks.

(xvi) Reclamation Plan in an area of 379.25 Ha, comprising of 89.16Ha of external dump, 271.71 Ha of internal dump and 18.92 ha of green belt & safety zone.

(xvii) 531.64 ha of forestland has been reported to be involved in the project. Approval under the Forest (Conservation) Act, 1980 for diversion of 531.64 Ha of forestland for non-forestry purposes has been obtained vide MoEF&CC letter No. F.No.8-48/2008-FC Dt.12.10.2010.

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

(xix) The ground water level has been reported to be varying between 6.50 m to 10 m during pre-monsoon and between 0.95 m to 6.50 m during post-monsoon. Total water requirement for the project is 3357 KLD.

(xx) Application for obtaining the approval of the Central Ground Water Authority has been submitted vide no: 21-4/328/JH/MIN/2018 Dated: 29.12.2018.

(xxi) Public hearing for the project of 12 MTPA capacity in an area of 1426.08 Ha was conducted on 02.03.2003. Major issues raised in the public hearing include mitigation of air & water pollution, compensation, employment opportunity, medical facilities &provision of drinking water etc. Appropriate action to address the issues raised in the Public Hearing have already been taken.

(xxii) Consent to Operate for the existing capacity was obtained from the Jharkhand State PCB on 30.06.2019 and is valid till 30.06.2020.

(xxiii) Chundru and Barki rivers flowing west to east and north to south respectively control the drainage of the block. The Barki River marks the eastern boundary of the property with a safe distance of about 100 mtrs.

(xxiv) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to JSPCB 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.

(xxv) No court cases or violation cases are pending against the project of the PP.

(xxvi) The project does not involve violation of the EIA Notification, 2006 and amendment issued there under. The coal production from the mine was started from the year 2013-14 onwards. No excess production of coal from the sanctioned capacity has been realized since the commencement of mining operations. The coal production, realized from the project, from 1993-94 onwards, is as under:

Year	Coal (Million tes)	OBR(Mcum)
2013-14	-	2.54
2014-15	2.55	17.74
2015-16	4.79	6.24
2016-17	6.23	4.19
2017-18	6.5	6.965
2018-19	10.2	12.2

(xxvii) The project involves 452 project-affected families. R&R of the PAPs will be done as per R&R Policy of CIL.

(xxviii) Total cost of the project is Rs. 85,811 Lakhs. Environment Management Cost is Approximately Rs. 8,900 lakhs.

53.7.3 During deliberations on the proposal, the EAC took note

The proposal is for grant of Environmental Clearance, under clause 7(ii) of EIA Notification, 2006 to Amrapali Opencast Coal Mine from 12 MTPA to 16.8 MTPA in an ML area of 619.87 ha of M/s Central Coalfields Limited located in District Chatra (Jharkhand).

Public hearing for the project of 12 MTPA capacity in an area of 1426.08 Ha was conducted on 2nd March, 2003. Appropriate action to address the issues raised in the Public Hearing have already been taken. Further during revalidation of EC under

Ministry's Notification dated 6th February, 2018, Public Notice was issued on 07.08.2019 in 3 newspapers in Hindi & English language.

The Mining Plan along with Mine closure Plan for Amrapali OCP was approved by the M/s CCL Board on 4th November, 2019 in the 479th Board meeting. Letter issued on 29th November, 2019

The certified compliance report for existing Environmental Clearance of submitted by Regional Office, Ranchi of MoEF&CC vide no: 103-80/05/EPE/3638 Dated: 04.12.2019. The Committee deliberated the compliance stratus and observed various non-compliance/partial compliances of EC conditions as identified by Regional Office, Chennai.

As per Regional Office Report, Ministry under section 5 of Environment (Protection) Act, 1986 had issued show cause notice dated 12th December, 2018 to the project for non-compliances/partial compliances of the Environmental Conditions contained in the EC

Further PP submitted the Compliance to Office Memorandum J11015/224/2015.-IA.II dated 15.09.2017

Sr. No.	Requirements of Office Memorandum	Compliance
1	Predicted air quality parameters are within the prescribed norms	Complied. 1. Air quality parameters are within prescribed limits of Industry Specific limits and NAAQ Standard 2009.
2	Coal transportation is through conveyor system up to the silo and then loading to railway wagons, involving no transportation through roads.	Complied. 1. A new Amrapali railway siding is under implementation for coal transportation from Amrapali OCP for which the work has been awarded to M/s RITES Ltd. After commissioning of this siding in FY 2022-23, there will be no transportation through road. 2. At present, the coal is being transported through tarpaulin-covered trucks to nearby Shivpur Railway siding on the Tori-Shivpur line, which is at a distance of 07 km from the project boundary. All precautions are being taken for mitigation of dust. 3. The coal to end consumers is being supplied by rail from Shivpur siding.
3	Coal mining is done through deployment of surface miners, replacing three dust generating operations of the conventional mining system namely drilling, blasting and crushing in one go	Complied. 1. Coal mining is done through deployment of surface miners. 2. 5 numbers of Surface miners are deployed for mining operation at Amrapali OCP.
4	Public hearing already	Complied.

	conducted for the total mine lease area involved and no more area is required for the proposed expansion.	1. Public hearing for the project of 12 MTPA in an area of 1426.08 Ha was conducted on 02.04.2003 at Chatra, District: Chatra, Jharkhand. 2. Public Notice for EC Revalidation issued on 07.08.2019 in 3 newspapers in Hindi & English language. 3. No more area is required for the expansion.
5	Compliance status of EC conditions monitored by the concerned Regional Office of this Ministry is found to be satisfactory.	1. Compliance status of EC conditions submitted by Regional Office of MoEF&CC vide no: 103-80/05/EPE/3638 Dated: 04.12.2019.
6	Other statutory requirements like Consent to Establish/Operate, Clearance from CGWA, approval of Mining Plan and the Mine Closure Plan, Mine Closure Status Report as applicable, Forest Clearance etc are satisfactorily fulfilled.	1. Consent to Establish of Amrapali OCP is obtained vide Ref No. 3502 dated 09.06.2003. 2. Consent to Operate of Amrapali OCP is obtained vide: JSPCB/HO/RNC/CTO-5076029/2019/1230 Dated: 30.06.2019 valid till 30.06.2020. 3. Mining Plan & Mine Closure Plan of Amrapali OCP is approved on 04.11.2019 in the 479th Board meeting of CCL. . 4. Total forestland within the project area is 531.64 Ha for which Stage II Forest Clearance has been obtained vide letter no. 8-48/2008-FC on 12.10.2010. 5. The area falls in Safe category as per the categorization available on CGWA website. Online Application for "Permission to Dewater Ground Water for Mining Industry" has been submitted vide application number - 21-4/328/JH/MIN/2018 dated 29.12.2018.
7	The proposed expansion can go up to a maximum of 40 % of capacity, wherein the last public hearing was conducted.	Complied. This proposal is for one time capacity expansion from 12.0 MTPA to 16.8 MTPA (40 %) in the existing coal mining operation.
8	There is no increase in area for the proposed expansion vis-à-vis the area in EC wherein last public hearing was conducted.	Complied. There is no increase in existing project area of the mines wherein the last public hearing was conducted.
9	Coal transportation is through conveyor system up to the silo and loading to the railway wagons, and not by road.	Complied. 1. A new Amrapali railway siding is under implementation for coal transportation from Amrapali OCP for which the work has been awarded to M/s RITES Ltd. After commissioning of this siding in FY 2022-23, there will be no transportation through road.

		2. At present, the coal is being transported through tarpaulin-covered trucks to nearby Shivpur Railway siding on the Tori-Shivpur line, which is at a distance of 07 km from the project boundary. All precautions are being taken for mitigation of dust. 3. The coal to end consumers is being supplied by rail from Shivpur siding.

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

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

The Committee noted that the report is in compliance for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

53.7.4 The EAC, after detailed deliberation observed PP must focus on compliance of EC conditions and further **recommended** the proposal for grant of environmental clearance to Amrapali Opencast Coal Mine from 12 MTPA to 14.4 MTPA (Peak) in an ML area of 619.87 ha of M/s Central Coalfields Limited located in District Chatra (Jharkhand), under the provision of clause 7(ii) of EIA Notification, 2006 and under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the following terms & conditions / specific conditions:-

(i) EAC desired that the MoC may direct CIL subsidiaries to comply the EC/FC/CTO conditions strictly within certain time bound manner so that the mining operations will be environmentally sustainable/viable etc.
(ii) The project proponent shall obtain Consent to establish from the State Pollution Control Boards for the proposed peak capacity of 14.4 MTPA (Peak) prior to commencement of the increased production.
(iii) Transportation of coal from Coal Handling Plant shall be through covered trucks.
(iv) To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers.
(v) PP shall implement inpit conveyor to railway siding through silo loading in three years.
(vi) Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate

corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at loading and unloading points, etc.

(vii) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.

(viii) Persons of nearby villages shall be given training on livelihood and skill development to make them employable.

(ix) Thick green belt of adequate width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check the dust pollution.

(x) Efforts shall be made for utilizing alternate sources of surface water, abandoned mines or else whatsoever and thus minimizing the dependability on a single source.

(xi) The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 14.4 MTPA (Peak).

(xii) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.

(xiii) A third party assessment of EC compliance shall be undertaken once in three years through agency like ICFRI /NEERI/IIT or any other expert agency identified by the Ministry.

(xiv) Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles

(xv) Compliance of the non-compliance/partial compliance conditions certified by Regional Office, Nagpur vide its Letter dated 4th December, 2019. The PP shall complete all non-compliance/partial compliance conditions in one year and the Action taken report shall be submitted to the Regional Office of the MoEF&CC.

(xvi) Project proponent to plant 100,000 nos. of native trees with broad leaves along the villages and 50,000 nos of native trees along transportation route to prevent the effect of air pollution in 2 years. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer.

(xvii) The activities and fund provisions for CER shall be made as per the guidelines issued by the ministry regarding CER on 1st May, 2018.

(xviii) Project Proponent shall obtain blasting permission from DGMS for conducting mining operation near villages and also explore deployment of rock breakers of suitable capacity in the project to avoid blasting very near to villages. There shall be no damages caused to habitation/structures due to blasting activity.

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

(xx) Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table. The intersecting ground water table can only be commence after conducting detailed hydrogeological study and necessary permission from the CGWA. The Report on six monthly basis on changes in Ground water level and quality shall be

submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.

(xxi) Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of antisnake venom including all other paramedical safeguards may be ensured before initiating the mining activities.

(xxii) Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".

(xxiii) The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.

(xxiv) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.

(xxv) 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.53.8

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

[Online Proposal No. IA/JH/CMIN/118659/2019; F.No. J-11015/756/2007-IA.II(M)]

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

53.8.2 The details of the project as submitted by the project proponent is given below: -

(i) The project area is covered under Survey of India Topo Sheet No 72D/4 (SOI Open Series Map no. G45S4) and is bound by the geographical coordinates ranging from 24°08'31.4" to 24°09'30.751" N and longitudes 84°03'28.75" N and 84°05'11.7" E.
(ii) Coal linkage of the project is proposed for end use sponge iron plants of JV companies
(iii) Joint venture has been formed of M/s Aloke Steels Industries Private Limited and M/s Maa Chinnmastika Cement and Ispat Private Limited, located in Distt. Ramgarh, Jharkhand.
(iv) Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC's vide its OM dated 13.01.2010 has imposed moratorium on grant of environmental clearance.
(v) Employment generation- permanent employment to 185 persons will be provided in the project.
(vi) The project is reported to be beneficial in terms of employment opportunities under various cadres viz. management, supervisory, highly skilled, skilled, semi-skilled and unskilled workmen etc.
(vii) Earlier, the environment clearance to the project was obtained under EIA Notification, 2006 vide Ministry's letter No J-11015/756/2007-IA.II(M) dated 13.03.2008 for 0.2 MTPA of coal production in project area of 405 ha to previous Lessee M/s Usha Martin Ltd. The EC was transferred to M/s Aaranya Mines Ltd. on 10.06.2015.
(viii) The total mining lease area for working in non-forest area will be 126.90 ha. Block area is 335 ha. A mining plan (Modification/ Revision-I) (including mine closure plan) has been approved for non-forest area of 126.90 ha with a production of 0.2 MTPA by Ministry of Coal vide letter dated 10.07.2019.
(ix) The land usage pattern of the project is as follows:

Pre-mining land use details (Area in Ha)

S. No.	Land Use	Within ML Area	Outside ML Area	Total
1	Agricultural Land	31.64	0.0	31.64
2	Forest Land	0.0	0.0	0.0
3	Wasteland	0.0	0.0	0.0
4	Grazing Land	0.0	0.0	0.0
5	Surface Water Bodies	3.6	0.0	3.6
6	Settlements	0.0	0.0	0.0
7	Township	2.78	0.0	2.78
8	Road	1.4	0.0	1.4
9	Others (Barren & community	87.48	0.0	87.48

	land)			
	Total Project Area =	126.90	0.0	126.90

Post Mining (Area in Ha)

	Land Use	Post Closure						
		Agricultural land	Plantation	Water Body	Public Use/ Company use	Forest Land (Returned)	Undist-urbed	Total
1	Excavation Area#							0
1.a.	Backfilled Area	4.34	64.02					68.36
1.b.	Excavated Void			30.19				30.19
1.c.	Top Soil Dump *							0
1.d.	External dump **							0
2	Safety zone/ rationalisation area							0
3	Road diversion				0.36			0.36
4	Diversion/ below river/ nala/ canal			1.0				1.0
5	Road and Infrastructure area	2.50			1.50			4.0
6	Embankment				3.21			3.21
7	Green belt		9.96					9.96
8	Water reservoir near pit/ water body	1.00						1.0
9	Undisturbed / Mining right for UG						8.82	8.82
	Total	7.84	73.98	31.19	5.07	0	8.82	126.90

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

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

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

(x) Total geological reserve reported in the mine lease area (126.90 ha) is 3.18 MT with 2.68 MT mineable reserve. Out of total mineable reserves, entire reserve is available for extraction. Percent of extraction is 84.28%.

(xi) Three seams with thickness ranging from 0.15 m to 2.90 m are workable. Grade of coal is Insitu G5 & ROM G6, stripping ratio 8.15, while gradient is 3 to 7°.

(xii) Method of mining operation envisages opencast method with shovel/ dumper in OB and FE loader/ dumper in coal shovel & dumper combination.

(xiii) Life of mine have been reduced to 14 years from 45 year as previously approved.

(xiv) The project has one external OB dump, which will be initially outside the working quarry area but within ultimate pit limit and ML boundary. Initially, the overburden will be dumped on 10.50 ha with maximum height 30 m. After creation of sufficient void within the pit, internal dumping will commence (during 5th year itself and continue till the end). Total pure OB generated from the mine will be 21.34 Mcum out of which only 2.07 mcum will be required to be accommodated in the external dump, the rest 19.27 mcum will be backfilled in the de-coaled area. A crown dump

of 30 m over an area of 21.1 ha over the backfilled area will also be created. The external dump will also be rehandled and backfilled from 11th to 14th year. There will be one temporary top soil dump of 4.5 ha with 0.51 McumB, which will be completely reutilized within the life of mine

(xv) Total quarry area is 98.55 ha out of which backfilling will be done in 68.36 ha while final mine void will be created in an area of 30.19 ha with a depth of 35 m. Backfilled quarry area of 68.36 ha shall be reclaimed with plantation (64.02 ha) & Agricultural land (4.34 ha). Final mine void will be converted into water body.

(xvi) Transportation of coal has been proposed by RD trucks from mine pit to the end use plant, initially. Later on, the coal will be transported by trucks to proposed captive spur (siding) along Kajri railway station, after its construction, at a distance of 3 km and from siding it will be transport through Railway.

(xvii) Reclamation Plan in an area of 118.08 ha comprising of 68.36 ha of backfilled area. In addition to this, an area of 9.96 ha included in safety zone/ rationalisation area, has also been proposed for greenbelt development.

(xviii) Zero hectare of forest land is reported to be involved in the 126.90 ha project.

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

(xx) The ground water level has been reported to be varying between 5.55 m to 16.2 m during pre-monsoon and between 1.8 m to 14.6 m during post-monsoon. Total water requirement for the project is 154 KLD.

(xxi) Application for obtaining the approval of the Central Ground Water Authority for mine dewatering has been submitted on 07.01.2020.

(xxii) Public hearing for the project of 0.2 MTPA capacity in an area of 405 ha was conducted on 04.05.2007 at Lohara Middle School, Lohara when the mine was allotted to M/s Usha martin Ltd. Major issues raised in the public hearing include employment, compensation and R&R, pollution control, impact on ground water etc. The then Mine Authorities had taken/proposed take actions as under and the same will be followed by present allottee.

(xxiii) Consent to Establish for the project was obtained by prior allottee (Usha Martin Ltd.) from JSPCB on 20.09.2007 (expired) for an area of 405 ha. The project is yet to be implemented by new allottee i.e. Araanya Mines Pvt. Ltd. CTE will be obtained after suitable amendment in EC for project area in non forest land of 126.90 ha and several other statutory clearances.

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

(xxv) Regular monitoring of ambient air quality shall being carried out on fortnightly basis after commencement of operation. The documented report shall be submitted to RO, JSPCB and also to MoEF&CC along with half yearly EC compliance report.

(xxvi) No court cases-violation cases are pending against the project (126.9 ha ML) or the PP.

(xxvii) The project does not involve violation of the EIA Notification, 2006 and amendment issued thereunder.

(xxviii) The coal production from the mine has not been started.

(xxix) The project involves R&R for 100 houses in proposed ML area of 126.90 ha. It is a part of the total R&R project proposed for the whole Lohari Block. R&R of the PAPs will be done as per R&R plan.

(xxx) Total cost of the project is about Rs. 70 Crores. Cost of production is Rs. 700/- per tonne., CSR cost will be 2% of the average profit of three years as per

Companies Act, R&R cost will be Rs 23 crores, will be updated as per the Jharkhand R&R Policy & LARR. Capital Environment Management Cost is Rs.1 crores and recurring cost approximately Rs. 20 lakhs per annum. Apart from this, Rs. 6.6 crores have been provisioned in progressive mine closure plan for garland drains, dams, toe walls, greenbelt developments, Reclamation/ Rehabilitation of mined out area etc.

53.8.3 The EAC during deliberations noted the following: -

Lohari opencast coal project was granted environmental clearance to the previous allottee M/s Usha Martin Ltd. vide EC letter dated 13.03.2008. However, the coal block was de-allocated subsequent to the Hon'ble Supreme Court order on 25.08.2014.
M/s Araanya Mines Pvt. Ltd. (AMPL) became the "successful bidder" and allocated the coal block vide the vesting order from Ministry of Coal dated 22.04.2015. MoEF&CC thereafter transferred the EC to AMPL on 10.06.2015. Thereafter, certain typographical rectification was requested by AMPL in mine lease area and the same were granted by MoEF&CC vide amendment letter dated 16.02.2016.

The project was proposed over a project area of 405 ha with the production of 0.2 MTPA coal. The block is virgin till date.

The previous allottee had identified that 405 ha did not have any forest land and recorded the same in the Approved Mining Plan. Subsequently, during the process of obtaining the lease, discrepancies emerged and forest area (i.e. GMJJ) was noticed by previous allottee as 85.30 ha, for which they obtained first stage Forest Clearance vide letter no. 8-05/2013-FC dt. 03.04.2013. The same was transferred to AMPL vide no. 8-05/2013-FC dated 04.06.2015.

During the course of completing various land related formalities, AMPL found that the 85.30 ha GMJJ land details, when compared with the actual ground realities, were found in complete variance. Most of the GMJJ lands were found settled by Raiyats of village for agricultural and residential purposes, their names recorded in Register II of revenue records and they were depositing lagan for the settled lands. Their land were devoid of Jungle-Jhar. AMPL brought on record the actual situation before the concerned authorities of the State Government. The Govt. of Jharkhand decided to finalize the "Revisional Survey" of the four villages of Lohari Coal Mine and Director, Land Records published the final land records. These records do not show any Jungle-Jhar land in the mine area.

However, Jharkhand Government maintains that considerable area of the proposed mine lease has come under deemed forest in old land records. It is still not clear whether there is an involvement of forest land and whether the forest clearance will be required. However, the decision as well as any FC (if required) will take considerable time before starting any mining activity. Mining has not yet been started due to above reason.

After deliberation in 3rd Meeting (dt. 19.04.2018) & 8th Meeting (dt. 11.01.2019) of the Monitoring Committee under the Chairmanship of Secretary (Coal). Due to lack clarity with respect to the status of Forest Land, AMPL will proceed with modification of mining plan and obtain a mine lease for non-forest area of 126.90 ha to commence mining.

Accordingly, Mining plan (Modification/ Revision-I) (including mine closure plan) for non-forest area of 126.90 ha with a production of 0.2 MTPA has been approved by MoC on 10th July, 2019 till resolution of the land related matters.

An undertaking has been submitted by project proponent to MoC to the effect that as soon as the forestry clearance (if required) and other clearances for mining is obtained, a Mining plan (Modification/Revision-II) (including Mine Closure Plan) will be prepared within 5 years for entire area (including forest land).

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

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

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

Agenda No.53.9

Expansion of Krishnashila Opencast Project from (6.25 MTPA to 7 MTPA) in an ML area of 851.78 ha of M/s Northern Coalfields Limited located in Tehsil Dudhi District Sonebhadra (Uttar Pradesh) - For Amendment in Environment Clearance

[Online Proposal No. IA/UP/CMIN/135659/2020; F.No. J-11015/243/2011-IA-II(M)]

53.9.1 The proposal is for continuation of Environmental Clearance for Expansion of Krishnashila Opencast Project from 6.25 MTPA to 7 MTPA in an ML area of 851.78 ha of M/s Northern Coalfields Limited located in Tehsil Dudhi District Sonebhadra (Uttar Pradesh).

53.9.2 During deliberations, the EAC noted the following:

The project was granted environmental Clearance for a capacity of 7.00 MTPA vide letter no. J11015/243/2011-IA.II (M) dated 12th March, 2018 for one year and further extended for one year vide letter no. J- 11015/243/2011-IA.II (M) dated 5th April, 2019.

The mining Plan (including Mine Closure Plan) was approved by NCL Board in 219th meeting on 26th November, 2017.

In compliance of MoEF & CC directives, Certified Copy of Compliance for Expansion of Krishnashila Opencast Project from (6.25 MTPA to 7 MTPA) in an ML area of 851.78 ha

of M/s Northern Coalfields Limited located in Tehsil Dudhi District Sonebhadra (Uttar Pradesh) was issued by Ministry's Regional Office, Lucknow dated 6th January, 2020. Site visit was conducted on 8th October, 2019 by Regional Office. The action taken report on Partial Non-compliance has not been submitted to Regional Office, however it was presented during the EAC appraisal. The Committee deliberated the same.

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

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

The Committee noted that the report is in compliance, reflecting the present environmental concerns and the projected scenario for all the environmental components. The EAC has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended the proposal.

53.9.3 The EAC, after detailed deliberations and duly considering compliance of EC dated 12th March, 2018 and 5th April, 2019 as certified by Ministry's Regional Office, **recommended** for **continuance of the environmental clearance dated 28th March, 2019 for life of the mine or 30 years whichever is earlier**, as per provisions of EIA Notification, 2006 with the conditions remaining the same in earlier EC and in addition to the conditions as mentioned below:-

(i). EAC desired that the MoC may direct CIL subsidiaries to comply the EC/FC/CTO conditions strictly within certain time bound manner so that the mining operations will be environmentally sustainable/viable etc

(ii). All the partially complied condition observed by Ministry's Regional Office in certified compliance report of RO, Lucknow dated 6th January, 2020 shall be completed in 3 years. An action plan with timeline for compliance should be submitted to RO, Lucknow in two months from the date of issue of the letter.

(iii). PP shall submit action plan for controlling/mitigating air pollution to RO, Lucknow in two months from the date of issue of the letter.

(iv). Project proponent to plant 100,000 nos. of native trees with broad leaves along the periphery of the mine to prevent the effect of air pollution in 3 years of the issue of this letter. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer

(v). Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles

(vi). Project Proponent shall obtain blasting permission from DGMS for conducting mining operation near villages and also explore deployment of rock breakers of

suitable capacity in the project to avoid blasting very near to villages. There shall be no damages caused to habitation/structures due to blasting activity

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

(viii). Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table. The intersecting ground water table can only be commencing after conducting detailed hydrogeological study and necessary permission from the CGWA. The Report on six monthly bases on changes in Ground water level and quality shall be submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.

(ix). Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of antisnake venom including all other paramedical safeguards may be ensured before initiating the mining activities.

(x). Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".

(xi). The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.

(xii). The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.

(xiii). 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 Ministry.

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

(xxxv) CTE/CTO for the project shall be obtained from the SPCB as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974, and the SPCB shall follow the mechanism/protocol issued by the Ministry vide letter no. Q-16017/38/2018-CPA dated 24th October, 2019 while issuing the CTE/CTO for the project, for improvement of environmental quality in the area.

(xxxvi) The green belt of at least 5-10 m width shall be developed in more than 40% (*in place of EAC recommended 33%)* of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.

(xxxvii) In addition, the project proponent shall develop greenbelt outside the plant premises such as avenue plantation, plantation in vacant areas, social forestry etc.

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

(xxxix) The percentage the CER may be atleast 1.5 times the amount given in the OM dated 1st May, 2018 recommended by the EAC and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.

Agenda No.53.10

Expansion of Gevra Opencast Coal Mine from 45 MTPA to 49 MTPA and continuance of EC for 45 MTPA in ML area of 4184.486 ha of M/s South Eastern Coalfields Limited at district Korba (Chhattisgarh) – Continuance and Expansion of Environmental Clearance – reg.

[Online Proposal No. IA/CG/CMIN/19281/2013; F.No. J-11015/85/2010-IA.II (M)]

53.10.1 The proposal is for continuance of EC validity of 45 MTPA and amendment in EC capacity for expansion from 45 MTPA to 49 MTPA in respect of Gevra Opencast coal mine in mining lease area of 4184.486 ha of M/s South Eastern Coalfields Limited in District Korba (Chhattishgarh).

53.10.2 During deliberations, the EAC noted the following:-

The proposal is for continuance of EC validity of 45 MTPA and amendment in EC capacity for expansion from 45 MTPA to 49 MTPA in respect of Gevra Opencast coal mine in mining lease area of 4184.486 ha of M/s South Eastern Coalfields Limited in District Korba (Chhattishgarh). Stage-1 Forest Clearance has been obtained for entire forest land (1016.412 Ha) involved in the project.

The proposal was earlier considered by EAC in its meeting held on 25th June, 2019 wherein EAC's observation are mentioned as below: -

Gevra Opencast Coal Mining Project was earlier granted environmental clearance on 3rd June, 2009 for its expansion from 25 to 35 MTPA involving an area of 4184.486 ha, based on public hearing conducted on 22nd August, 2008. The said EC was subsequently amended in stages (from 35-40 MTPA on 31st January, 2014, 40-41 MTPA on 6th February, 2015, 41-45 MTPA on 21st February, 2018 & 28th March, 2019) exempting from fresh public hearings in terms of the dispensation provided vide Ministry's OMs dated 19th December, 2012, 2nd September, 2014 & 15th September, 2017.

The Committee further observed that in view of the last public hearing more than 10 years old, the Ministry's OM dated 15th September, 2017 may not be relied upon by the project proponent as a right to seek further exemption from public hearing even if there is no increase in project area.

The last communication dated 28th March, 2019 stipulates continuance of the project from 41 to 45 MTPA in mine lease area of 4184.486 ha for a further period of one year, subject to review of compliance status of the conditions by the EAC to consider continuance of the project after one year. As such, the Committee found no rationale for the present proposal involving further expansion of the project from 45 to 49 MTPA, and insisted for compliance status of the conditions stipulated in the letter dated 28th March, 2019 duly endorsed by the Ministry's Regional Office.

In view of the above and to consider the present proposal, the Committee desired for issuing a public notice through the State Pollution Control Board for information of the stakeholders about the proposed expansion inviting comments and their redressal, and also site visit of the area by a sub-committee of its members. The proposal was accordingly deferred.

Also, The project was granted environmental clearance by the Ministry vide letter dated 20th March, 2019, subject to compliance of certain terms and conditions, inter-alia including the following:-

"subject to review of compliance status of the conditions by the EAC to consider continuance of the project after one year".

53.10.3 Following details submitted by the project proponent on the earlier observations of EAC:-

Sr. No.	Details desired by EAC committee	Status of compliance
1	The last communication dated 28th March, 2019 stipulates continuance of the project from 41 to 45 MTPA in mine lease area of 4184.486 ha for a further period of one year, subject to review of compliance status of the	Details of Inspection conducted by RO, MoEF&CC, Nagpur at Gevra OCP and subsequent reports submitted on status of 45 MTPA EC Compliance: • RO MoEF&CC, Nagpur inspection held on 25.12.2019 for compliance status of Environmental Clearance of 45 MTPA

	conditions by the EAC to consider continuance of the project after one year. As such, the Committee found no rationale for the present proposal involving further expansion of the project from 45 to 49 MTPA, and insisted for compliance status of the conditions stipulated in the letter dated 28th March, 2019 duly endorsed by the Ministry's Regional Office.	Dtd:28.03.2019. • Compliance status report submitted by RO to MoEF&CC, New Delhi vide letter No:3-28/2014(ENV)Pt/6080 Dtd: 14.01.2020. • Action Taken Report over Certified Compliance Report submitted to RO MoEF&CC (Nagpur) on 21.01.2020. • Action Taken Report over Certified Compliance Report forwarded by RO to MoEF&CC, New Delhi vide letter No:3-28/2014(ENV)Pt/6174 Dtd: 04.02.2020. SUMMARY: Total no. of EC conditions – 62 no. No. of conditions complied- 57 no. No. of conditions partially complied- 05 no. No. of conditions not complied- Nil
2	Committee desired for issuing a public notice through the State Pollution Control Board for information of the stakeholders about the proposed expansion inviting comments and their redressal.	Paper publication done on 05.12.2019 through state pollution control board in following newspapers Navabharath, Dainik Bhaskar and Times of India (Delhi). RO CECB informed vide letter No :1576 Dtd:13.01.2020 that no comments /objections/remarks has been received from public in writings even after 30 days of paper publication regarding expansion of Gevra Open Cast from 45 MTPA to 49 MTPA.
3	Site visit of the area by a sub-committee of its members.	Site visit made by EAC sub-committee on 10th & 11th Sept 2019. Action taken report on the observation of EAC Sub-committee is enclosed.

Earlier, the Environmental Clearance of Gevra opencast was accorded by the Ministry on 03.06.2009 for expansion from 25 MTPA to 35 MTPA and in leasehold area of 4184.486 ha, under the provisions of the EIA Notification, 2006 with public hearing. Public hearing was held on 22.08.2008.

The project was accorded EC vide letter no. J-11015/85/2010-IA.II (M) dated 31.01.2014 for the expansion from 35 MTPA to 40 MTPA under clause 7(ii) of EIA Notification, 2006 and subsequent OM J-11015/30/2004.IA.II(M) dated 19.12.2012 issued to facilitate one time capacity expansion without public hearing.

The project was accorded amendment in the EC vide letter No. J-11015/85/2010-IA.II (M) dated 06.02.2015 for incremental difference in the production capacity from 40 MTPA to 41 MTPA in accordance to OM J-11015/30/2004.IA.II(M) dated 2.9.2014.

Meanwhile MoEF&CC issued OM no. J-11015/224/2015-IA.II (M) dated 15.09.2017 for

environmental clearance for expansion of coal mining projects upto 40% with exemption of public hearing.

On the basic of OM no. J-11015/224/2015-IA.II (M) dated 15.09.2107, a fresh application was submitted by PP for expansion of Gevra Opencast coalmine project from 41 MTPA to 49 MTPA without public hearing in mining lease area of 4184.486ha vide his letter no. SECL/BSP/Envt/Gevra OC_49/17/6772 dated 20.10.2017.

The project was accorded EC for production capacity from 41 MTPA to 45 MTPA in an area of 4184.486 ha vide File no. J-11015/85/2010-IA.II (M)pt Dated: 21.02.2018 with validity up to 31.03.2019.

Further based on Ministry's OM dated 15th September, 2017 following compliance was noted by EAC

Sl. No.	O.M Conditions	Compliance
1	Predicted air quality parameters are within the prescribed norms	Complied. Air quality impact prediction for incremental coal production (8 MTPA incremental for expansion from 41 to 49 MTPA) has been done along with EIA/EMP report
2.	Coal transportation is through conveyor system up to the silo and then loading to railway wagons, involving no transportation through roads.	Complied. The incremental coal production will be transported through conveyor system up to the silo and then loading into the railway wagons.
3.	Coal mining is done through deployment of surface miners, replacing three dust generating operations of the conventional mining system namely drilling, blasting and crushing in one go.	Complied. • Coal production is by deployment of surface miners. • Incremental production will also be done through deployment of surface miner.
4.	Public hearing already conducted for the total mine lease area involved and no more area is required for the proposed expansion.	Complied. • Public hearing has been conducted for the entire land area of 4184.486 Ha. on 22-08-2008. • No additional land is required for proposed expansion. • The major concerns raised in public hearing were regarding employment, supply of drinking water to affected villages, education and healthcare services to affected people. • All concerns have been addressed.
5.	Compliance status of EC conditions monitored by the concerned Regional Office of this ministry is found to be satisfactory.	Complied. • Compliance status of EC conditions monitored by the concerned Regional Office of Ministry has been found satisfactory.
6.	Other statutory requirements	Complied.

	like Consent to Establish/Operate, Clearance from CGWA, approval of Mining Plan and the Mine Closure Plan, Mine Closure Status Report as applicable, Forest Clearance, etc are satisfactorily fulfilled.	Details of the statutory requirements such as Consent to Operate, Forest Clearance, CGWA Clearance, approved Mining Plan and Mine Closure Plan for 49 MTPA etc are as below: • Consents to operate issued by Chhattisgarh Environment Conservation Board, Raipur for 45 MTPA, which is valid upto 28.02.21. • Hazardous waste authorization has been received on 17.04.18 valid up to 21.11.20 • Clearance of ground water from CGWA has been obtained on 22.01.19 which is valid up to 03.12.20 • Mine plan and Mine closure plan has been approved by the SECL Board on 10/11.10.2017. • Forest Clearances- Stage-1 Forest Clearance have been obtained for the entire forest land of 1016.412 ha involved in the project.

Further PP submitted status of studies being carried out for the current project.

No.	Description of Study	Status
1	Specific Condition No. 4 (ix): Study on Eco system carrying capacity	Study on Eco system carrying capacity has been awarded to IIT BHU on 09.02.2019 and the study commenced on 20th May 2019. Also Interim report submitted by IIT BHU to PP on 28.11.2019 Action has already been initiated on the measures suggested in the interim report. Status as below Final report is expected by April, 2020.

	Addl. Recomendation suggested	*Present Status / ATR*
a	Long range fogging Machine	One Long range fogging machine with horizontal throw of 40 mtrs has been procured and put into operation for effective dust suppression in Railway siding and mine premises.
b	Mechanical road sweeping Machine	Mechanical road sweeping machine has been procured & in operation for regular cleaning of Project premises.
c	Wind barrier system	Temporary green netting arrangement has been provided in the proposed site for reducing dust propagation. The erection of permanent structure along the railway siding is in progress The frame work with installation of GI sheets costing about 183 lakhs will be completed by May 2020.

d	Spray system at exit point of coal	Mist spray sprinklers are in operation in all crusher feeder breaker installations, Ground bunker of all conveyor system, In-pit belt conveyors, CHP etc. Total 48 Nos of Mist Spray Sprinklers and 10 Nos of Water Spray System are in operation in the entire Coal Handling Plant.
e	Tyre washing arrangement at exit point of coal.	Regular washing of HEMM and Trucks is being done in Workshop. Separate Tyre washing unit will be provided under the modernization of mine capital budget head of Rs 25 crore provisioned in approved mine plan (Page 60).Timeline: By Dec, 2020
2	Generic Condition No 4.1 b(ii): Catchment area treatment plan study within 5 KM from Mine Lease Boundary.	Study was awarded to Chhattisgarh Council of Science & Technology, Govt. of CG. Interim Report of field study submitted by CCOST on 13.01.2019. Action has already been initiated on the measures suggested in the interim report. Status as below Final report is under finalization and expected by May, 2020.
SN	*Recommendations suggested by CCOST*	*Present Status / ATR; Details already given in the Certified RO, MoEFCC report*
1.	EROSION CONTROL MEASURES (PROPOSED LANDUSE)	
	Area Proposed for Phase Wise Plantation, Gap Plantation, Intensive Plantation, Steep Slope Stability Measures/Carpeting	More than 43.01 lakhs saplings over an area of 1139.32 Ha. have been planted since 1986 in Gevra OCP including downwind direction In the year 2019-20, 62750 nos. of saplings planted through CGRVVN (Chhattisgarh Rajya van vikas Nigam Limited) including SAL PLANTATION Plantation target for the year 2020-21 is 55950 Nos over Dump Area of 17.00 Ha and 17000 Nos of grass bedding over Dump Slope. Safety Zone plantation in downwind direction is under progress. About 28000 saplings have been planted covering length of 14 kms
2.	EROSION CONTROL MEASURES (PROPOSED STRUCTURES)	
	Check Dam, Nala Bunds/Boulder Checks, Vegetative Bunds	2018-19 Plantation dump area has been provided with Contour trench with 300 plants per trench, check dams of total dimension 20 m^3 and bunds with stone boulders of total dimension 20 m Gabion wall (3m X 3m for 0.5 Km) has been constructed along the toe wall of approach road / ramp (newly constructed Inpit conveyor of Gevra Project). A toe wall is constructed at External Dump no. 6 & 7 of dimensions: Length 650 meters, height above ground 1.00 meters and top width of wall 200 mm

		in the year 2018-19

There are court cases pending with the project proponent as per the following details:-

1. Appeal no. 78 of 2018 filed by the Shri. Laxmi Chauhan against the Project Proponent of Gevra Opencast Expansion Coal Mine (Respondent no. 4) for capacity expansion of 41-45 MTPA before the National Green Tribunal, Principal Bench, New Delhi.
2. Details of Court Cases

S N	Year of Violation	Production	Case No	Court	Parties	Brief	Present Status
1	2001-02 to 2004-05	More than 10 MTPA	1217 / 2007	JMC Class I Korba. Case transferred to High Court Bilaspur in 2010	CECB, Korba. Vs. CGM Dipka Extension Gevra area SECL	Regarding Cri. Complaint filed under Sec.15 & 17 of EP Act.	Pending at High Court Bilaspur
2	31.7.2000	Consent not renewed and capacity expanded from 10 MTPA	613/ 2007	HC of CG, BSP	CECB, Korba. Vs. SECL Gevra Project	Regarding Cri. Complaint filed under Sec.15 & 17 of EP, 1986. Criminal revision.	Pending at High Court Bilaspur

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

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

The Committee noted that the report is in compliance, reflecting the present environmental concerns and the projected scenario for all the environmental

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

The EAC, after detailed deliberations duly considering observations of the Ministry's Regional Office in their letter dated 14th January, 2020 and 4th February, 2020, **recommended** for **continuance of the environmental clearance dated 28th March, 2019 for a period of 30 years or life of the mine,** whichever is earlier, subject to the terms and conditions stipulated therein remaining the same. Further regarding proposal of expansion from 45 MTPA to 49 MTPA, EAC observed decision on expansion may be taken based on final outcome of the proposed studies as mentioned above. Also, PP need to focus more on compliance of partial compliance of EC conditions. The Committee also recommended the additional conditions for continuance of EC

(i). EAC desired that the MoC may direct CIL subsidiaries to comply the EC/FC/CTO conditions strictly within certain time bound manner so that the mining operations will be environmentally sustainable/viable etc.

(ii). Also, EAC asked project proponent to plant 50,000 nos. of native trees (excluding other conditions of plantation given by this Ministry) with broad leaves along the villages and transportation route to prevent the effect of air pollution in three years. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Office.

(iii). All Partially and non-complied conditions (if any) reported by Ministry's Regional Office in its certified compliance report dated 14th January, 2020 shall be completed in 2 years from the date of issue of this letter.

(iv). Final recommendation/outcome of the study on Ecosystem carrying capacity by IIT-BHU and Catchment area treatment plan study within 5 KM from Mine Lease Boundary by CCOST shall be implemented in certain timeframe. PP shall submit action plan with timeline to Ministry's Regional Office for implementation of recommendation.

(v). Fixed water sprinklers shall be installed on haul roads for suppression of dust.

(vi). The activities and fund provisions for CER shall be made as per the guidelines issued by the ministry regarding CER on 1st May, 2018

(vii). Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles

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

(ix). Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table. The intersecting ground water table can only be commencing after conducting detailed hydrogeological study and necessary permission from the CGWA. The

Report on six monthly bases on changes in Ground water level and quality shall be submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.

(x). Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of antisnake venom including all other paramedical safeguards may be ensured before initiating the mining activities.

(xi). Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".

(xii). The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.

(xiii). The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.

(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 Regional Office of the Ministry.

Agenda No 53.11

Manoharpur and Dipside Manoharpur Coal Mine Project (Expansion of Manoharpur Coal Mine)in an area of 1848.379 ha of M/s Odisha Coal and Power Limited located in Tehsil Hemgir District Sundargarh (Orissa) - For ToR

[Online Proposal No. IA/OR/CMIN/88081/2018; F. No. J-11015/139/2008. IA. II (M)]

53.11.1 The proposal is for ToR/EC for "Manoharpur and Dip-side Manoharpur Coal Mine Project at a Peak Rated Capacity of 16 MTPA (Expansion of Manoharpur Coal Mine)" in mine lease area of 1781.591 ha. (Total Project area 1848.379 ha) of Odisha Coal and Power Limited located in village Manoharpur, Paramanandpur, Kathafali, Ghumudasan, Dulanga, Durubaga, Katarbaga, Laikera and Sarbahal, Tehsil Hemgir, District Sundargarh (Odisha).

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

(i) The project area is covered under Survey of India Topo Sheet No 64 O/13 and 64 O/9 (Open Series TOP Map No. F44 R13 F44 R9) and is bounded by the geographical coordinates ranging from Latitude 21° 55' 52.168" to 21° 58' 16.871" N and longitudes 83° 44' 41.287" to 83° 47' 42.750" E.

(ii) Coal linkage of the project is proposed for 2640 MW (4 X 660 MW) power generation to Thermal power plant of Orissa Power Generation Corporation Ltd (OPGC), the EUP. Currently, OPGC has constructed 2x660 MW power plant, which have been made operational since January 2019. The balance 2x660 MW will be planned in future by OPGC. In case the additional capacity i.e. 2x660 MW does not come up due to any reason whatsoever, 8 MTPA coal becomes excess and can be utilized under the provisions of Allotment Agreement (Clause-8).

(iii) Joint venture cartel has been formed- Not applicable

(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- direct employment to 205 persons by OCPL and about 500 persons through MO.

(vi) The project is reported to be beneficial in terms of existing and proposed expansion of mining establishment which will increase employment opportunities under various cadres viz. management, supervisory, highly skilled, skilled, semi-skilled and unskilled workmen etc. and indirectly, it will also help to sustain the coal production till the end of life of proposed linked thermal power station.

(vii) Earlier, the environment clearance to the project was obtained under EIA Notification, 2006 vide Ministry's letter No J-11015/139.2008-IA.II (M) dated 21.02.2014 for 8 MTPA in mine lease area of 977.875 ha. The EC was accorded by the prior allottee and the same has been transferred to OCPL.

(viii) Total mining lease area as per block allotment is 1337.885 Ha (inside the blocks). Mining Plan Including Progressive Mine Closure Plan (Revision- III) has been approved by the Ministry of Coal on 26.09.2019.

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

Pre-mining land use details (Area in Ha)

Sl. No.	Classification of Land	Area Inside the block	Area outside block	Total
1	Forest Land	474.287	134.918	609.205
2	Agricultural Land	339.364	163.446	502.810
4	Homestead land	14.032	4.438	18.47
3	Barren Land	431.723	122.173	553.896
5	Grazing Land	51.401	15.820	67.221

6	Water Body	27.078	2.911	29.989
Total Land within proposed Mining Lease		1337.885	443.706	1781.591
Land for Colony for MO & Owner and other outside mining lease area				
1	Agricultural Land		28.317	28.317
2	Barren Land		29.032	29.032
3	Forest Land		9.439	9.439
Total Land outside proposed Mining Lease			66.788	66.788
Total Project Area		1337.885	510.494	1848.379

POST MINING

Details	Land use (Post Mining (after final closure) in Ha)
Excavation Area	0
Backfilled Area	854.400
Excavated Void	380.040
Top Soil Dump	10.840
External Dump	269.510
Infrastructure & embankment	172.016
Safety / Rationalization Zone	16.000
Agricultural	0
Plantation / Green Zone	50.0
Water body / Diversion of Nala / River / Canal / Garland drain	20.690
Public / Com Use	0
Other Use	66.788
Forest land (return)	0
Undisturbed / MR for UG	8.095
Total	1848.379

(x) Total geological reserve reported in the mine lease area is 978.470 MT with 664.239 MT mineable reserve. Out of total mineable reserve of 664.239 MT, 636.309 MT are available for extraction. Percent of extraction is 65%.

(xi) 14 seams ((3 major seams namely Lajkura, Rampur, Parkhani & 11 no. Local seams; Coal section / horizons - 24) with thickness ranging from 4m – 42 m are workable. Grade of coal is G 14 (Major grade varies from G12-G15), stripping ratio 2.75 Cum/t, while gradient is 1 to 10.

(xii) Method of mining operations envisages by Opencast Mechanized method

(xiii) Life of mine is 44 years.

(xiv) The project has 2 Nos. (External dump 1 – Adjacent to Mine Boundary within block and External dump 2 – East and South-east of block) external OB dumps in an area of 269.510 ha with 90 to 120 m height (External dump 1 - 90 m (3 tiers of 30 m each) & External dump 2 – maximum up to 120 m (4 tiers of 30 m each) and 167.92 Mm^3 of OB. The OB from the current mining operations shall be backfilled from 2nd year onwards. One internal OB in an area of 854.4 ha with 1579.49 Mcum (Top soil = 2.64 Mcum & OB = 1576.85 Mcum) of OB is envisaged in the project.

(xv) Total quarry area is 1234.440 ha out of which backfilling will be done in 854.400 ha while final mine void will be created in an area of 380.04 ha with a depth of 180 m to 410 m. However, during Mine Closure period upper tiers of Internal dump will

be rehandled and bought to the unfilled void area. Thus the depth of void will be reduced to 60-90 m. Backfilled quarry area of 854.400 ha shall be reclaimed with plantation. Final mine void will be converted into water body.

(xvi) Transportation of coal has been proposed by dumper in mine pit head, from surface to siding by belt conveyor and from sidings to OPGC power plants (EUP) by dedicated MGR system. In case, the additional capacity i.e. 2 x 660 MW, does not come up due to any reason whatsoever, 8 MTPA coal becomes excess and can be utilized under the provisions of Allotment Agreement (Clause – 8). In that case, the coal may be transported by road from coal mine to Kanika siding/ ACB siding (Hemgir)/Laikera/ any other Indian Railway sidings in the near vicinity of mine and from there to other consumers by Indian Rail.

(xvii) Reclamation Plan in an area of 1018.265 ha, comprising of 269.510 ha of external dump, 854.40 ha of internal dump and 50 ha of green belt. In addition to this, an area of 16 ha, has been included towards the safety zone/rationalization area.

(xviii) 618.644 ha of forest land has been reported to be involved in the project. Approval under the Forest (Conservation) Act, 1980 for diversion of 276.655 ha (including 76.19 Ha area which is to be treated as forest as per dictionary meaning) of forest land for non-forestry purposes has been obtained vide MoEF&CC letter No.8-63/2011-FC dated 20.08.2014 for Manoharpur Coal Mine (8 MTPA) by the prior allottee (OPGC). Since, this 76.19 Ha of land is Govt. non forest land, the same has been acquired through OGLS Act, 1962. However, all the requirement of FC Act has been complied. The FC was transferred to OCPL vide letter no. F.No.8-63/2011-FC dated 30.11.2015.

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

(xx) The ground water level has been reported to be varying between 2.6 m bgl to 11.1m bgl during pre-monsoon and between 0.9 m bgl to 6.49m bgl during post-monsoon. Total water requirement for the project is 3780 KLD (2830 KLD for industrial purpose and 950 KLD for potable use).

(xxi) Approval of the Central Ground Water Authority for withdrawal of Ground Water has been obtained vide NOC No:- CGWA/NOC/MIN/ORIG/2018/3818 dated 19.07.2018.

(xxii) Public hearing for the project of 8 MTPA capacity in an area of 651.24 ha was conducted on 28-02-2012 at the playground in front of N.U.P School, Manoharpur village, Durugaba G.P. Major issues raised in the public hearing includes establishment of an Industrial Training Centre at Hemgir, selection of site of the R&R Colony including the facilities of the R&R Colony, proper valuation of old structures, trees in the village, priority to the PAP for local employment in mines, Appropriate pollution control measures, etc. Appropriate action to address the issues raised in the Public Hearing have already been taken/proposed to be taken.

(xxiii) Consent to Operate for the existing capacity was obtained from the State PCB on 28.02.2018 and is valid till 31.03.2021.

(xxiv) Garia Nalla River/nalla is flowing in south eastern side boundary of lease is being diverted. The nalla is being diverted in consultation with the Water Resource Department of the State Government.

(xxv) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is being submitted to OSPCB regularly on monthly basis. 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.

(xxvi) No court cases, violation cases are pending against the project of the PP.

(xxvii) The project does not involve violation of the EIA Notification, 2006 and amendment issued thereunder. The coal production from the mine was started from the year October 2019 onwards. No excess production of coal from the sanctioned capacity has been realized since the commencement of mining operations.

(xxviii) The project involves 615 project affected families. R&R of the PAPs will be done as per R&R policy.

(xxix) Total cost of the project is Rs. 2143 crores. Cost of production is Rs. 620.74/- @100% production level, CSR cost is around Rs. 7 crores, R&R cost is Rs. 355 crores. Environment Management Cost is Rs. 150 crores.

(xxx) Consent to operate (CTO) was obtained from the State Pollution Control Board vide letter no. 2208 / IND-I-CON-6454 dated 28.02.3018 and is valid till 31.03.2021.

53.11.3 The EAC during deliberation noted the following: -

Earlier the proposal was considered by EAC in its meeting held on 5th December, 2019. EAC observed the following: - that current proposal of expansion will be coming after 10 years. Committee opined that proposal is very premature. Also PP has not applied for stage-1 Forest clearance. The proposal was deferred accordingly.

EAC noted the following details submitted by Project proponents:

As per the approved Mining Plan (Rev – III), OCPL is required to produce 4.00 MTPA coal in the FY-2020-21, which is not covered in the earlier Environment Clearance issued. The approved Mining Plan (Rev-III) also covers Dipside Manoharpur coal mine (expansion of Manoharpur coal mine). In order to implement the Mining Plan (Rev-III), the EC also needs to be obtained.

The process of Environment Clearance involves a lot of activities like Public Hearing and obtaining other associated clearances, which will take considerable time. Further, the Forest Clearance process requires the updates of EC and there is possibility that the Forest Clearance process may get stuck up in absence of the ongoing process of EC.

The Efficiency Parameters as per the Allotment Agreement specify the milestones, like Environment Clearance, Forest Clearance, Mining Lease execution etc., which are to be achieved within a stipulated timeline. In case of failure or delay in achieving the milestones, there will be appropriation of Performance Security (BG) and may lead to cancellation of coal block as well.

The ToR is having 4 years validity indicating that delays in submission of final EIA/EMP reports do occur due to unforeseen circumstances viz: code of conduct, cancellation of public hearings, etc.

The EC is not granted till Stage-1 forest clearance has been obtained by the project proponent. The minimum time required to obtain Stage-1 FC is 18 months typically under ideal circumstances.

Hence, with the production projected for the FY 22-23 being 8 MTPA (as per present EC), there is only around 3 years left to obtain all the above milestones and statutory clearances for expansion to 16 MTPA.

Mine Plan including Mine Closure Plan (Rev-III) having a capacity of 16 MTPA has been approved by Ministry of Coal on 26th September, 2019 for Manoharpur and Dipside of Manoharpur Coal Blocks

Project involves forest land of 618.644 ha (609.205 ha in ML area & 9.439 ha outside ML area) for diversion for non-forestry activity. Online Application of remaining forest land of 353.53 a was filed on 14th December, 2018. After final assessment of DFO, Sundargarh, final land area comes out 342.87 ha accordingly, application was updated on 31st December, 2019 for Stage-I FC.

53.11.2 The Committee, after deliberations **recommended** for grant of terms of references to Manoharpur and Dipside Manoharpur Coal Mine Project (Expansion of Manoharpur Coal Mine)in an area of 1848.379 ha of M/s Odisha Coal and Power Limited located in Tehsil Hemgir District Sundargarh (Orissa), and specific conditions as below and as defined in the Standard ToR issued by this Ministry for such projects/activities under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto.

(i). Public Consultation, including public hearing, shall be conducted through concerned SPCB as per the provisions/procedure contained in the EIA Notification, 2006 for information of the stakeholders about the present coal mining operations inviting comments and their redressal

(ii). Stage-I clearance for the entire forestland involved the project shall be obtained before making an application for the environmental clearance.

(iii). Plan showing the safety zone along the nallah passing through the block vis –a-vis DGMS guidelines shall be enclosed as a part of EIA/EMP.

(iv). Valid Mining Plan and the Progressive Mine Closure Plan duly approved by the competent authority

(v). Ecological restoration and mine reclamation plan to be prepared with afforestation of local/native species found in the area.

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

(vii). Wind rose pattern in the area should be reviewed and accordingly location of AAMSQ will be planned by the collection of air quality data

(viii). Utilization of fly ash in external overburden dumps and backfilling shall be ensured as per the provisions contained in the Fly Ash Notification, 2009, read with subsequent amendments.

(ix). Permission for ground water withdrawal shall be obtained from Central Ground Water Authority (CGWA), if applicable

(x). Fund allocation for Corporate Environment Responsibility (CER) shall be made as per Ministry's O.M. No. 22-65/2017-IA.III dated 1st May, 2018 for various activities therein. The details of fund allocation and activities for CER shall be incorporated in EIA/EMP report

(xi). PP shall demarcate and explain the exact area and location for storage of top soil in mine plan

(xii). 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.

(xiii). Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.

(xiv). For proper baseline air quality assessment, adequate monitoring stations in the downwind areas based on wind rose pattern of the area, shall be set up for collection of air quality data and air quality modelling.

(xv). Report of controlled blasting technique and subsequent DGMS approval.

(xvi). Permission of diversion of nallah/streams/water bodies shall be obtained

(xvii). A certified report on the updated status of compliance of conditions stipulated in the earlier environmental clearance from the concerned Regional Office of the MoEF&CC.

(xviii). Details of court cases and the compliance status (if any)

Any other Item deliberated with the permission of the Chairman

Agenda No 53.12

Expansion of Tapin South Open Cast Coal Mine Project from 0.6 MTPA to 2.00 MTPA Normative/2.50 MTPA Peak with an increase in ML area from 54.10 ha to 178.06 ha of M/s Central Coalfields Limited, located in Tehsil Churchu, District Hazaribagh (Jharkhand) – Environmental Clearance – reg.

53.12.1 The EAC during deliberations noted the following: -

The proposal is for grant of Environmental Clearance to expansion of Tapin South Open Cast Coal Mine project from 0.6 MTPA to 2.00 MTPA Normative/2.50 MTPA Peak with an increase in ML area from 54.10 ha to 178.06 ha of M/s Central Coalfields Limited, located in Tehsil Churchu, District Hazaribagh (Jharkhand). The proposal was recommended by the sectoral Expert Appraisal Committee (EAC) in the Ministry for Thermal & Coal Mining Sector in its meeting held during 28th June 2018 subject to necessary clarification regarding diversion/regularization of the forest land of 24.71 ha and compliance of terms and conditions as applicable, and the additional conditions thereto.

The project for Tapin South Expansion OCP from 0.06 MTPA to 2 MTPA (Normative)/2.50 MTPA (peak) was accorded TOR vide letter No. J-11015/155/2013-IA.II (M) dated 20th May, 2014 which was further modified vide letters dated 29th May, 2015 and 1st September, 2015.

Also, sub-committee of the EAC conducted site visit on 15th May, 2018 and gave various observation for further compliance.

Ministry vide letter dated 23rd April, 2019 sought clarification from PP regarding diversion/regularization of 24.71 ha forest land. However, till date PP did not provided the required clarification.

Now, PP has submitted the revised Mine Plan and Mine Closure Plan approved by M/s Central Coalfields Limited Board vide its letter dated 29th November, 2019 based on meeting held on 4th November, 2019. PP vide its letter dated 16th January, 2020 requested for grant of environmental clearance by revising/reducing the land area from 178.06 ha to 151.93 ha i.e excluding the area of 24.71 ha forest land.

The proposal has to been taken to EAC for consideration after approval of the competent authority.

53.12.2 The EAC after deliberation observed that PP has unnecessarily delayed in providing the clarification sought by the Ministry after recommendation of EAC. EAC further desired that information uploaded on Parivesh portal is incomplete as due the reduced area of the project, the whole land use pattern changes. However, PP has uploaded only request letter along with approve mine plan letter. Casual approach towards process of environmental clearance of PP can be seen by this only. Further, EAC desired that Ministry may keep the earlier recommendation for environmental clearance i.e. on 28th June, 2018 on hold for a while and desired the following from project proponent.

(i) PP shall be called to EAC in the meeting for presentation for the proposed changes in land use pattern and mining activities.
(ii) PP shall provide the status of recommendation of sub-committee site visit on 15th May, 2018
(iii) Status of Consent to Operate vis-à-vis past production details
(iv) One month baseline data on same monitoring station and comparison with earlier data.
(v) Permission for approval of extraction of ground water from Central Ground Water Authority.
(vi) Compliance of issues address during Public Hearing held on 27th February, 2016

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

The meeting ended with thanks to the Chair.

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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 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 statue be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM_{10}, $PM_{2.5}$, SO_2 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 PM_{10}/$PM_{2.5}$) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled

regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.

(iv) The transportation of coal shall be carried out as per the provisions and route envisaged in the approved Mining Plan or environment monitoring plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.

(v) Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.

(vi) Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.

(vii) Coal handling plant shall be operated with effective control measures w.r.t. various environmental parameters. Environmental friendly sustainable technology should be implemented for mitigating such parameters.

(c) Water quality monitoring and preservation

(i) The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board.

(ii) The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No.J-20012/1/2006-IA.11 (M) dated 27th May, 2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.

(iii) Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.

(iv) Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.

(v) Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.

(vi) Catch and/or garland drains and siltation ponds in adequate numbers and appropriate size shall be constructed around the mine working, coal heaps & OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be properly consolidated/ compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. The drains/ ponds so constructed shall be regularly de-silted particularly before onset of monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper settling of silt material. The water so collected in the sump shall be

utilised for dust suppression and green belt development and other industrial use. Dimension of the retaining wall constructed, if any, at the toe of the OB dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the dump and adjacent field/habitation/water bodies.

(vii) Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) after due treatment conforming to the specific requirement (standards).

(viii) Industrial waste water generated from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed under the standards prescribed under Water Act 1974 and Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Adequate ETP /STP needs to be provided.

(ix) The water pumped out from the mine, after siltation, shall be utilized for industrial purpose *viz.* watering the mine area, roads, green belt development *etc.* The drains shall be regularly desilted particularly after monsoon and maintained properly.

(x) The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations, considering the presence of river/rivulet/pond/lake etc, shall be prepared and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the approved Mining Plan/EIA/EMP report and with due approval of the concerned State/GoI Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved Mining Plan and as per the permission of DGMS or any other authority as prescribed by the law.

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

(d) Noise and Vibration monitoring and prevention

(i) Adequate measures shall be taken for control of noise levels as per Noise Pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.

(ii) Controlled blasting techniques shall be practiced in order to mitigate ground vibrations, fly rocks, noise and air blast etc., as per the guidelines prescribed by the DGMS.

(iii) The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

(e) Mining Plan

(i) Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.

(ii) Mining shall be carried out as per the approved mining plan(including Mine Closure Plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).

(iii) No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980.

(iv) Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.

(f) Land reclamation

(i) Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change(MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).

(ii) The final mine void depth should preferably be as per the approved Mine Closure Plan, and in case it exceeds 40 m, adequate engineering interventions shall be provided for sustenance of aquatic life therein. The remaining area shall be backfilled and covered with thick and alive top soil. Post-mining land be rendered usable for agricultural/forestry purposes and shall be diverted. Further action will be treated as specified in the guidelines for Preparation of Mine Closure Plan issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.

(iii) The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conformity with the "during mining"/"post mining" land-use pattern, which is an integral part of the approved Mining Plan and the EIA/EMP submitted to this Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the MOEFCC/RO.

(iv) Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3rd November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, along with fly ash for external dump of overburden, backfilling of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.

(v) Further, it may be ensured that as per the time schedule specified in mine closure plan it should remain live till the point of utilization. The topsoil shall temporarily be stored at earmarked site(s) only and shall not be kept unutilized. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be stabilised with native grass species to prevent erosion and surface run off. The other overburden dumps shall be vegetated with native flora species. The excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change/ Regional Office.

(vi) The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

(g) Green Belt

(i) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered/endemic flora/fauna, if any, spotted/reported in the study area. The Action plan in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.

(ii) Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the mine lease area as soon as possible. The green belt comprising a mix of native species (endemic species should be given priority) shall be developed all along the major approach/ coal transportation roads.

(h) Public hearing and Human health issues

(i) Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & it's RO on six-monthly basis.

(ii) The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, as amended time to time.

(iii) Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.

(iv) Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.

(v) The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.I1 (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

(i) Corporate Environment Responsibility

(i) The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No.22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.

(ii) The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violation of the environmental/forest/wildlife norms/conditions and/or shareholders/stake holders.

(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; PM_{10}, SO_2, NOx (ambient levels) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

(v) The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

(vi) The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.I1 (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

(vii) The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

(viii) The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.

(ix) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

(x) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

(xi) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change.

(xii) Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

(xiii) The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

(xiv) The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

(xv) The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

(xvi) The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

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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. (incase of the presence of schedule-I species in the study area)

(v) The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.

(vi) The project proponent shall obtain the necessary permission from the Central Ground Water Authority.

(vii) Solid waste/hazardous waste generated in the mines needs to addressed in accordance to the Solid Waste Management Rules, 2016 / Hazardous & Other Waste Management Rules, 2016

II. Air quality monitoring and preservation

i. Adequate ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely particulates, SO_2 and NO_x. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive receptors in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, *etc.* to be carried out at least once in six months. Online ambient air quality monitoring station/stations may also be installed in addition to the regular air monitoring stations as per the requirement and/or in consultation with the SPCB

ii. The Ambient Air Quality monitoring in the core zone shall be carried out to ensure the Coal Industry Standards notified vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board. Data on ambient air quality and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly reported to the Ministry/Regional Office and to the CPCB/SPCB.

iii. Transportation of coal, to the extent permitted by road, shall be carried out by covered trucks/conveyors. Effective control measures such as regular water sprinkling/rain gun/ mist sprinkling etc., shall be carried out in critical areas prone

to air pollution with higher level of particulate matter all through the coal transport roads, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.

iv. Major approach roads shall be black topped and properly maintained.

v. The transportation of coal shall be carried out as per the provisions and route proposed in the approved mining plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed that the impact of sound, dust and accidents could be appropriately mitigated.

vi. Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.

vii. Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.

viii. Coal handling plant shall be operated with effective control measures w.r.t. various environmental parameters. Environmental friendly sustainable technology should be implemented for mitigating such parameters.

III. **Water quality monitoring and preservation**

i. The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board.

ii. The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J-20012/1/2006-IA.11 (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.

iii. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.

iv. Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.

v. Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.

vi. The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the mine. The embankment constructed along the river/nallah boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side, stabilized with plantation

so as to withstand the peak water pressure preventing any chance of mine inundation.

vii. Garland drains (of suitable size, gradient and length) around the critical areas i.e. mine shaft and low lying areas, shall be designed keeping at least 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. The sump capacity shall also provide adequate retention period to allow proper settling of silt material of the surface runoff

viii. The water pumped out from the mine, after siltation, shall be utilized for industrial purpose viz. watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.

ix. Industrial waste water from coal handling plant and mine water shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made thereunder, and as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluent. Sewage treatment plant of adequate capacity shall be installed for treatment of domestic waste water.

x. Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.

xi. The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations shall be prepared, considering the presence of any river/rivulet/pond/lake etc., with impact of mining activities on it, and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the provisions of the approved Mining Plan/ EIA-EMP submitted to this Ministry and the same should be done with due approval of the concerned State/GoI Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved mining plan and as per the permission of DGMS.

xii. The project proponent shall take all precautionary measures to ensure reverian/ riparian ecosystem in and around the coal mine upto a distance of 5 km. A 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, alongwith fly ash for external dump of overburden, backfilling or stowing of mines. Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.

v. A separate team for subsidence monitoring and surface mitigation measures shall be constituted and continuous monitoring & implementation of mitigation measures be carried out.

vi. Thorough inspection of the mine lease area for any cracks developed at the surface due to mining activities below ground shall be carried out to prevent inrush of water in the mine.

vii. Native tree species shall be selected and planted over areas affected by subsidence.

viii. The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent

shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

VII. Green Belt

i. The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered flora/fauna, if any, spotted/reported in the study area. Action plan, in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.

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

VIII. Public hearing and Human health issues

i. Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored.

ii. The Project Proponent shall undertake Occupational Health survey for initial and Periodical medical examination of the workers engaged in the Project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS Circulars. Besides carrying out regular periodic health check-up of their workers, 20% of the workers engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any.

iii. Personnel (including outsourcing employees) working in dusty areas shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.

iv. Skill training as per safety norms specified by DGMS shall be provided to all workmen including the outsourcing employees to ensure high safety standards in mines.

v. Effective arrangement shall be made to provide and maintain at suitable points conveniently situated, a sufficient supply of drinking water for all the persons employed.

vi. Implementation of Action Plan on the issues raised during the Public Hearing shall be ensured. The Project Proponent shall undertake all the tasks as per the Action Plan submitted with budgetary provisions during the Public Hearing. Land oustees shall be compensated as per the norms laid out R&R Policy of the Company/ or the National R&R Policy/ R&R Policy of the State Government, as applicable

vii. The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.I1 (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

IX. Corporate Environment Responsibility

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.

ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting

infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

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

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

X. Miscellaneous

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

ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

iv. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

v. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

vi. The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.

vii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

ix. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

x. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

xiii. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

xiv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

xv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

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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 NOx. 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 statue be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM_{10}, $PM_{2.5}$, SO_2 and NO_x. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.

iii. Transportation of coal by road shall be carried out by covered trucks/conveyors. The transportation of clean coal and rejects shall be by rail with wagon loading through silo. Effective measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulates

such as roads, belt conveyors, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled at source. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central/State Pollution Control Board

iv. All approach roads shall be black topped and internal roads shall be concreted. The roads shall be regularly cleaned. Coal transportation shall be carried out by covered trucks.

v. Covered trucks shall be engaged for mineral transportation outside the washery upto the railway siding, shall be optimally loaded to avoid spillage en-route. Trucks shall be adequately maintained and emissions shall be below notified limits.

vi. Facilities for parking of trucks carrying raw material from linked mine shall be created within the unit.

vii. Vehicular emissions shall be kept under control and regularly monitored. The vehicles having 'PUC' certificate from authorized pollution testing centres shall be deployed for washery operations.

viii. Hoppers of the coal crushing unit and other washery units shall be fitted with high efficiency bag filters/mist spray water sprinkling system shall be installed and operated effectively at all times of operation to check fugitive emissions from crushing operations, transfer points of closed belt conveyor systems and from transportation roads.

ix. The raw coal, washed coal and coal wastes (rejects) shall be stacked properly at earmarked site (s) within stockyards fitted with wind breakers/shields. Adequate measures shall be taken to ensure that the stored mineral does not catch fire.

x. The temporary reject sites should appropriate planned and designed to avoid air and water pollution from such sites.

III. **Water quality monitoring and preservation**

i. The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board.

ii. The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No. J-20012/1/2006-IA.11 (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for compliance.

iii. Industrial waste water shall be properly collected and treated so as to conform to the standards prescribed under the Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time.

iv. The project proponent shall not alter major water channels around the site. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the washery. The embankment constructed along the river/nallah boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side stabilised with plantation so as to withstand the peak water pressure preventing any chance of inundation.

v. Heavy metal content in raw coal and washed coal shall be analysed once in a year and records maintained thereof.

vi. The rejects should preferably be utilized in FBC power plant or disposed off through sale for its gainful utilization. If the coal washery rejects are to be disposed off, it should be done in a safe and sustainable manner with adequate

compaction and post closure arrangement to avoid water pollution due to leachate from rejects and surface run of from reject dumping sites.

vii. An Integrated Surface Water Management Plan for the washery area up to its buffer zone considering the presence of any river/rivulet/pond/lake *etc*. with impact of coal washing activities on it, shall be prepared, submitted to MoEFCC and implemented.

viii. Waste Water shall be effectively treated and recycled completely either for washery operations or maintenance of green belt around the plant.

ix. Rainwater harvesting in the washery premises shall be implemented for conservation and augmentation of ground water resources in consultation with Central Ground Water Board.

x. No ground water shall be used for coal washing unless otherwise permitted in writing by competent authority (CGWA) or MoEFCC. The make-up water requirement of washery should not exceed 1.5 m3/tonne of raw coal.

xi. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.

xii. Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.

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

IV. Noise and Vibration monitoring and prevention

i. The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis

ii. Adequate measures shall be taken for control of noise levels as per noise pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.

V. Coal beneficiation

i. Coal stacking plan shall be prepared separately for raw coal, clean coal, middling and rejects.

ii. Efforts should be made to reduce energy consumption by conservation, efficiency improvements and use of renewable energy.

VI. Green Belt

i. Three tier greenbelt comprising of a mix of native species, of minimum 30 m width shall be developed all along the washery area to check fugitive dust emissions and to render aesthetic to neighbouring stakeholders. A 3-tier green belt comprising of a mix of native species or tree species with thick leaves shall be

developed along vacant areas, storage yards, loading/transfer points and also along internal roads/main approach roads.

ii. The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

VII. Public hearing and Human health issues

i. Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & its RO on six-monthly basis.

ii. The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any. as amended time to time.

iii. Personnel (including outsoured employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.

iv. Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.

v. The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.I1 (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

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 approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental

protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

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

IX. Miscellaneous

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

ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

iv. The project proponent shall monitor the criteria pollutants level namely; PM_{10}, SO_2, NOx (ambient levels) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

vii. The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.

viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

x. No change in coal beneficiation process and scope of work shall be made without obtaining prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC) with such conditions mentioned therein. No change in the maximum quantum of raw material feed per annum against the approved washery capacity shall be made

xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

xv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

xvi. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

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ANNEXURE-IV

Generic ToR for coal washery

i. Siting of washery is critical considering to its environmental impacts. Preference should be given to the site located at pit head; in case such a site is not available, the site should be as close to the pit head as possible and coal should be transported from mine to the washery preferably through closed conveyer belt to avoid air pollution.
ii. The washery shall not be located in eco-sensitive zones areas.
iii. The washery should have a closed system and zero discharge. The storm drainage should be treated in settling ponds before discharging into rivers/streams/water bodies.
iv. A thick Green belt of about 50 m width should be developed surrounding the washery.
v. A brief description of the plant alongwith a layout, the specific technology used and the source of coal should be provided.
vi. The EIA-EMP Repot should cover the impacts and management plan for the project of the capacity for which EC is sought and the impacts of specific activities, including the technology used and coal used, on the environment of the area (within 10km radius), and the environmental quality of air, water, land, biotic community, etc. through collection of data and information, generation of data on impacts for the rated capacity. Cumulative impacts for air and water should be a part of EIA in case coal mine, TPP and other washeries are located within 10km radius. The EIA should also include mitigative measures needed to minimize adverse environmental impacts.
vii. A Study Area Map of the core zone as well as the 10km area of buffer zone showing major industries/mines and other polluting sources should be submitted. These maps shall also indicate the migratory corridors of fauna, if any and areas of endangered fauna; plants of medicinal and economic importance; any ecologically sensitive areas within the 10 km buffer zone; the shortest distance from the National Park/WL Sanctuary Tiger Reserve, etc. alongwith the comments of the Chief Wildlife Warden of the State Govt.
viii. Data of one-season (non-monsoon) primary- base-line data on environmental quality of air (PM_{10}, $PM_{2.5}$, SOx and NOx, noise, water (surface and groundwater), soil be submitted.
ix. The wet washery should generally utilize mine water only. In case mine water is not available, the option of storage of rain water and its use should be examined. Use of surface water and ground water should be avoided.
x. Detailed water balance should be provided. The break-up of water requirement as per different activities in the mining operations vis-a-vis washery should be given. If the source of water is from surface water and/or ground water, the same may be justified besides obtaining approval of the Competent Authority for its drawl.
xi. The entire sequence of mineral production, transportation, handling, transfer and storage of mineral and waste, if any, and their impacts on air quality should be shown in a flow chart with specific points where fugitive emissions can arise and specific pollution control/mitigative measures proposed to be put in place. The washed coal and rejects should be transport by train as far as possible. Road transport of washed coal and rejects should generally be avoided. In case, the TPP is within 10km radius, it should be through conveyer belt. If transport by rail is not feasible because of the topography of the area, the option for transport by

road be examined in detail and its impacts along with the mitigation measures should be clearly brought out in EIA/EMP report.

xii. Details of various facilities proposed to be provided in terms of parking, rest areas, canteen etc. to the personnel involved in mineral transportation, workshop and effluents/pollution load from these activities should be provided.

xiii. Impacts of CHP, if any, on air and water quality should also be spelt out alongwith Action Plan.

xiv. O.M.no.J-ll0I3/25/2014-IA.I dated 11th August, 2014 to be followed with regard to CSR activities.

xv. Details of Public Hearing, Notice(s) issued in newspapers, proceedings/minutes of Public Hearing, points raised by the general public and response/commitments made by the proponent along with the Action Plan and budgetary provisions be submitted in tabular form. If the Public Hearing is in the regional language, an authenticated English translation of the same should be provided. Status of any litigations/ court cases filed/pending, if any, against the project should be mentioned in EIA.

xvi. Analysis of samples indicating the following be submitted:

Characteristics of coal prior to washing (this includes grade of coal, other characteristics of ash, S and heavy levels of metals such as Hg, As, Pb, Cr etc).

Characteristics and quantum of coal after washing.

Characteristics and quantum of coal rejects.

xvii. Details of management/disposal/use of coal rejects should be provided. The rejects should be used in TPP located close to the washery as far as possible. If TPP is within a reasonable distance (10 km), transportation should be by conveyor belt. If it is far away, the transportation should be by rail as far as possible.

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

xix. Corporate Environment Responsibility:

a) The Company must have a well laid down Environment Policy approved by the Board of Directors.

b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.

c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.

d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.

xx. A detailed action Plan for Corporate Social Responsibility for the project affected people and people living in and around the project area should be provided.

xxi. Permission of drawl of water shall be pre-requisite for consideration of EC.

xxii. Wastewater /effluent should confirm to the effluent standards as prescribed under Environment (Protection) Act, 1986

xxiii. Details of washed coal, middling and rejects along with the MoU with the end-users should be submitted.

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ANNEXURE-V

GENERIC TOR FOR AN OPENCAST COALMINE PROJECT for EC

(i) An EIA-EMP Report shall be prepared for..... MTPA rated capacity in an ML/project area of.....ha based on the generic structure specified in Appendix III of the EIA Notification, 2006.

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

(iii) A toposheet specifying locations of the State, District and Project site should be provided.

(iv) A Study area map of the core zone (project area) and 10 km area of the buffer zone (1: 50,000 scale) clearly delineating the major topographical features such as the land use, surface drainage pattern including rivers/streams/nullahs/canals, locations of human habitations, major constructions including railways, roads, pipelines, major industries/mines and other polluting sources. In case of ecologically sensitive areas such as Biosphere Reserves/National Parks/WL Sanctuaries/ Elephant Reserves, forests (Reserved/Protected), migratory corridors of fauna, and areas where endangered fauna and plants of medicinal and economic importance found in the 15 km study area should be given.

(v) Land use map (1: 50,000 scale) based on a recent satellite imagery of the study area may also be provided with explanatory note on the land use.

(vi) Map showing the core zone delineating the agricultural land (irrigated and un-irrigated, uncultivable land as defined in the revenue records, forest areas (as per records), along with other physical features such as water bodies, etc should be furnished.

(vii) A contour map showing the area drainage of the core zone and 25 km of the study area (where the water courses of the core zone ultimately join the major rivers/streams outside the lease/project area) should also be clearly indicated in the separate map.

(viii) A detailed Site plan of the mine showing the proposed break-up of the land for mining operations such as the quarry area, OB dumps, green belt, safety zone, buildings, infrastructure, CHP, ETP, Stockyard, township/colony (within and adjacent to the ML), undisturbed area -if any, and landscape features such as existing roads, drains/natural water bodies to be left undisturbed along with any natural drainage adjoining the lease /project areas, and modification of thereof in terms of construction of embankments/bunds, proposed diversion/re-channelling of the water courses, etc., approach roads, major haul roads, etc should be indicated.

(ix) In case of any proposed diversion of nallah/canal/river, the proposed route of diversion /modification of drainage and their realignment, construction of embankment etc. should also be shown on the map as per the approval of Irrigation and flood control Department of the concerned state.

(x) Similarly if the project involves diversion of any road/railway line passing through the ML/project area, the proposed route of diversion and its realignment

should be shown in the map along with the status of the approval of the competent authority.

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

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

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

(xii) Break-up of lease/project area as per mining plan should be provided.

(xiii) Impact of changes in the land use due to the project if the land is predominantly agricultural land/forestland/grazing land, should be provided.

(xiv) One-season (other than monsoon) primary baseline data on environmental quality - air (PM_{10}, $PM_{2.5}$, SO_x, NO_x and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil - along with one-season met data coinciding with the same season for AAQ collection period should be provided.

(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 though 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^{o} angle as the ultimate slope should be given. Sections of final dumps (both longitudinal and cross section) with relation to the adjacent area should be shown.

(xxviii) Efforts be made for maximising progressive internal dumping of O.B., sequential mining, external dump on coal bearing area and later rehandling into the mine void.--to reduce land degradation.

(xxix) Impact of change in land use due to mining operations and plan for restoration

of the mined area to its original land use should be provided.

(xxx) Progressive Green belt and ecological restoration /afforestation plan (both in text, figures and in the tabular form as per the format of MOEFCC given below) and selection of species (native) based on original survey/land-use should be given.

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

S.N.	Land use Category	Present (1st Year)	5th Year	10th Year	20th Year	24th 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.	1st year										
2.	3rd year										
3.	5th year										
4.	10th year										
5.	15th year										
6.	20th year										
7.	25th year										
8.	30th year										
9.	34th year(end of mine life)										
10.	34- 37th										

	Year (Post-mining)										

*As a representative example

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

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

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

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

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

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

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

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

(xxxvii) Details of R&R. Detailed project specific R&R Plan with data on the existing socio-economic status of the population (including tribals, SC/ST, BPL families) found in the study area and broad plan for resettlement of the displaced population, site for the resettlement colony, alternate livelihood concerns/employment for the displaced people, civic and housing amenities being offered, etc and costs along with the schedule of the implementation of the R&R Plan should be given.

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

given.

(xxxix) Corporate Environment Responsibility:

a) The Company must have a well laid down Environment Policy approved by the Board of Directors.

b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.

c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.

d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.

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

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

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

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

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

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

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

ANNEXURE -VI

GENERIC TORs FOR AN UNDERGROUND COALMINE PROJECT

(i) An EIA-EMP Report shall be prepared for..... MTPA rated capacity in an ML/project area of.....ha based on the generic structure specified in Appendix III of the EIA Notification, 2006.

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

(iii) A Study area map of the core zone (project area) and 10 km area of the buffer zone (1: 50,000 scale) clearly delineating the major topographical features such as the land use, surface drainage pattern including rivers/streams/nullahs/canals, locations of human habitations, major constructions including railways, roads, pipelines, major industries/mines and other polluting sources. In case of ecologically sensitive areas such as Biosphere Reserves/National Parks/WL Sanctuaries/ Elephant Reserves, forests (Reserved/Protected), migratory corridors of fauna, and areas where endangered fauna and plants of medicinal and economic importance found in the 15 km study area should be given.

(iv) Map showing the core zone delineating the agricultural land (irrigated and un-irrigated, uncultivable land as defined in the revenue records, forest areas (as per records), along with other physical features such as water bodies, etc should be furnished.

(v) A contour map showing the area drainage of the core zone and 25 km of the study area (where the water courses of the core zone ultimately join the major rivers/streams outside the lease/project area) should also be clearly indicated in the separate map.

(vi) A detailed Site plan of the mine showing the proposed break-up of the land for mining operations such as the quarry area, OB dumps, green belt, safety zone, buildings, infrastructure, CHP, ETP, Stockyard, township/colony (within and adjacent to the ML), undisturbed area -if any, and landscape features such as existing roads, drains/natural water bodies to be left undisturbed along with any natural drainage adjoining the lease /project areas, and modification of thereof in terms of construction of embankments/bunds, proposed diversion/re-channelling of the water courses, etc., approach roads, major haul roads, etc should be indicated.

(vii) Original land use (agricultural land/forestland/grazing land/wasteland/water bodies) of the area should be provided as per the tables given below. Impacts of project, if any on the land use, in particular, agricultural land/forestland/grazing land/water bodies falling within the lease/project and acquired for mining operations should be analyzed. Extent of area under surface rights and under mining rights should be specified.

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

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

Area under Surface Rights

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

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

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

(x) Details of mining methods, technology, equipment to be used, etc., rationale for selection of specified technology and equipment proposed to be used vis-à-vis the potential impacts should be provided.

(xi) Impact of mining on hydrology, modification of natural drainage, diversion and channeling of the existing rivers/water courses flowing though the ML and adjoining the lease/project and the impact on the existing users and impacts of mining operations thereon.

(xii) One-season (other than monsoon) primary baseline data on environmental quality - air (PM_{10}, $PM_{2.5}$, SO_x, NO_x and heavy metals such as Hg, Pb, Cr, As, etc), noise, water (surface and groundwater), soil - along with one-season met data coinciding with the same season for AAQ collection period should be provided.

(xiii) Map (1: 50, 000 scale) of the study area (core and buffer zone) showing the location of various sampling stations superimposed with location of habitats, other industries/mines, polluting sources, should be provided. The number and location of the sampling stations in both core and buffer zones should be selected on the basis of size of lease/project area, the proposed impacts in the downwind (air)/downstream (surface water)/groundwater regime (based on flow). One

station should be in the upwind/upstream/non-impact/non-polluting area as a control station. The monitoring should be as per CPCB guidelines and parameters for water testing for both ground water and surface water as per ISI standards and CPCB classification wherever applicable. Observed values should be provided along with the specified standards.

(xiv) Impact of mining and water abstraction from the mine on the hydrogeology and groundwater regime within the core zone and 10 km buffer zone including long-term monitoring measures should be provided. Details of rainwater harvesting and measures for recharge of groundwater should be reflected in case there is a declining trend of groundwater availability and/or if the area falls within dark/grey zone.

(xv) Study on subsidence including modeling for prediction, mitigation/prevention of subsidence, continuous monitoring measures, and safety issues should be carried out.

(xvi) Detailed water balance should be provided. The break up of water requirement as per different activities in the mining operations, including use of water for sand stowing should be given separately. Source of water for use in mine, sanction of the Competent Authority in the State Govt. and impacts vis-à-vis the competing users should be provided.

(xvii) Impact of choice of mining method, technology, selected use of machinery and impact on air quality, mineral transportation, coal handling & storage/stockyard, etc, Impact of blasting, noise and vibrations should be provided.

(xviii) Impacts of mineral transportation within the mining area and outside the lease/project along with flow-chart indicating the specific areas generating fugitive emissions should be provided. Impacts of transportation, handling, transfer of mineral and waste on air quality, generation of effluents from workshop etc, management plan for maintenance of HEMM and other machinery/equipment should be given. Details of various facilities such as rest areas and canteen for workers and effluents/pollution load emanating from these activities should also be provided.

(xix) Effort be made to reduce/eliminate road transport of coal inside and outside mine and for mechanized loading of coal through CHP/ Silo into wagons and trucks/tippers.

(xx) Details of various facilities to be provided to the workers in terms of parking, rest areas and canteen, and effluents/pollution load resulting from these activities should also be given.

(xxi) The number and efficiency of mobile/static water sprinkling system along the main mineral transportation road inside the mine, approach roads to the mine/stockyard/siding, and also the frequency of their use in impacting air quality should be provided.

(xxii) Impacts of CHP, if any on air and water quality should be given. A flow chart showing water balance along with the details of zero discharge should be provided.

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

(xxiv) Greenbelt development should be undertaken particularly around the transport

route and CHP. Baseline data on the health of the population in the impact zone and measures for occupational health and safety of the personnel and manpower for the mine should be submitted.

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

(xxvi) Details of R&R. Detailed project specific R&R Plan with data on the existing socio-economic status of the population (including tribals, SC/ST, BPL families) found in the study area and broad plan for resettlement of the displaced population, site for the resettlement colony, alternate livelihood concerns/employment for the displaced people, civic and housing amenities being offered, etc and costs along with the schedule of the implementation of the R&R Plan should be given.

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

(xxviii) Corporate Environment Responsibility:

a) The Company must have a well laid down Environment Policy approved by the Board of Directors.

b) The Environment Policy must prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.

c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions must be furnished.

d) To have proper checks and balances, the company should have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.

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

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

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

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

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

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

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

ANNEXURE-VII

GENERIC TORs FOR AN OPENCAST-CUM-UNDERGROUND COALMINE PROJECT

(i) An EIA-EMP Report would be prepared for a combined peak capacity of .....MTPA for OC-cum-UG project which consists of .... MTPA in an ML/project area of ..... ha for OC and .... MTPA for UG in an ML/project area of ..... ha based on the generic structure specified in Appendix III of the EIA Notification 2006.

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

(iii) The ToRs prescribed for both opencast and underground mining are applicable for opencast – cum-underground mining.

***

ANNEXURE-VIII

Email **munna.shah@gov.in**

Re: Draft Minutes of 53rd EAC meeting held on 20.02.2020

From : navin chandra <navinchandrarrl@yahoo.com> Thu, Mar 05, 2020 12:52 PM

Subject : Re: Draft Minutes of 53rd EAC meeting held on 20.02.2020

To : Additional Director MoEFCC Dr R B LAL <rb.lal@nic.in>

Cc : sd vora <sd_vora@yahoo.com>, Dr J K Pandey <jkpandey@cimfr.nic.in>, N S Mondal <nsmondalcea@yahoo.com>, shuklanp55@gmail.com, mohankarnat4@gmail.com, manjari srivastava <manjari.srivastava@nmims.edu>, slele@atree.org, gpkundargi@gmail.com, pdsiwal@yahoo.com, rk giriccs <rk.giriccs@gmail.com>, Sanjeev Paliwal <sanjeevpaliwal.cpcb@nic.in>, sunil@iitism.ac.in, Munna Kumar Shah <munna.shah@gov.in>

Reply To : navin chandra <navinchandrarrl@yahoo.com>

05/03/2020

Dear Dr. Lal/Dr. Shah,

Since two of the EAC members have found the minutes to be in order and I have also read. The Minutes are approved and ready for uploading on the website of the Ministry of Environment, Forest and Climate Change.

Thanks,
Regards,

(NAVIN CHANDRA)

Dr. Navin Chandra,
Vice Chancellor, IES University, Bhopal
Chairman, Coal Mining & Thermal Power,
MoEF&CC, GOI, New Delhi.
Ex-Director General MPCST, Bhopal,
(Retd.) Director (Actg.), CSIR-AMPRI, Bhopal
Member, RC, CSIR-AMPRI, Bhopal.
Phone (Res.) 91-755-2454600
navinchandrarrl@yahoo.com, navinchandraampri@gmail.com

On Thursday, 5 March, 2020, 11:37:57 am IST, Additional Director MoEFCC Dr R B LAL <rb.lal@nic.in> wrote:

ANNEXURE-IX

PARTICIPANTS IN 53rd EXPERT APPRAISAL COMMITTEE (EAC) (THERMAL & COAL MINING) MEETING HELD ON 20th February, 2020. ON COAL SECTOR PROJECTS.

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

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सत्यमेव जयते

No. J-11015/109/2003-IA-II (M)
Government of India
Ministry of Environment, Forest and Climate Change
Impact Assessment Division
*****

Indira Paryavaran Bhawan,
Jorbagh Road, N Delhi - 3

Dated: 20th March, 2020

To,

The Head of Department (Environment & Forest),
M/s Central Coalfields Limited,
Darbhanga House,
Ranchi - 834029 (Jharkhand)
Email: envccl@yahoo.com

Sub: Amrapali Opencast Coal Mine from 12 MTPA to 14.4 MTPA (Peak) in an ML area of 619.87 ha of M/s Central Coalfields Limited located in District Chatra (Jharkhand) - For Environment Clearance under Clause 7(ii) of EIA Notification, 2006 - reg.

Sir,

This has reference to your online proposal no. IA/JH/CMIN/123390/2019 on 10th January, 2020, on the above-mentioned subject.

2. The Ministry of Environment, Forest and Climate Change has considered the proposal for grant of Environment Clearance under Clause 7(ii) of EIA Notification, 2006 to Amrapali Opencast Coal Mine from 12 MTPA to 14.4 MTPA (Peak) in an ML area of 619.87 ha of M/s Central Coalfields Limited located in District Chatra (Jharkhand).

3. The proposal was earlier considered by the Expert Appraisal Committee (EAC) in the Ministry for Thermal & Coal Mining Sector in its 53rd meeting held on 20th February, 2020. The details of the project, as per the documents submitted by the project proponent, and also as informed during the meeting, are reported to be as under: -

(i) The project area is covered under Survey of India Topo Sheet No: 73-A/13 and is bounded by the geographical coordinates ranging from 23°51'31'' to 23° 53'38''N latitude 84° 58'35" to 85° 02' 07" E longitude.

(ii) Coal linkage of the project is proposed for generation of Energy Sector for various customers through Basket linkage. At present coal is being transported through Shivpur railway siding. A new railway siding, Amrapali siding adjacent to the mine boundary is under commissioning. In future, it is proposed to dispatch coal through Amrapali railway siding.

(iii) Project does not fall in the Critically Polluted Area (CPA), where the MoEF&CC vide its OM dated 13th January 2010 has imposed moratorium on grant of environment clearance.

(iv) Employment generation: The project has given a boost to the economy of the area by providing primary and secondary employment to local people. Total number of permanent & temporary employment is approximately 650.

(v) The project is reported to be beneficial in terms of improvements in Physical Infrastructure; Improvements in Social Infrastructure; Increase in Employment Potential; Contribution to the Exchequer; Meet energy and steel sector requirement; Productive utilization of existing manpower of project.

(vi) Earlier, Environment Clearance to the project was obtained under EIA Notification-1994 vide Ministry's letter No J-11015/109/2003-IA.II(M) dated: 03.01.2006for 12 MTPA in project area of 1426.08 Ha. MoEF&CC through its notification vide no: S.O 1530 (E) dt. 16.04.2018 has directed that "The mining projects which were granted EC under EIA notification 1994 and but not obtained EC for expansion/ modernization/ amendment under the EIA notification 2006 shall make an application in Form I within six months from the date of issue of this notification for grant of EC under the provisions of the EIA notification, 2006". EAC(Coal) has recommended for revalidation of the Environment Clearance Dated: 03.01.2006, as mandated under the Ministry's Notification dated 6th April, 2018.

(vii) Mining Plan (including Progressive Mine Closure Plan) has been approved by the CCL Board meeting held on 04.11.2019.

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

Pre-mining land use details:

Description	Forest Area in Ha.	Non-Forest Area in Ha.	Total Area in Ha.
Quarry	392.75	32.47	425.22
Dump	60.14	29.02	89.16
Nala	2.85	0.25	3.10
Workshop	14.48	0	14.48
Chp	6.27	0	6.27
Sub Stn./Office	6.00	0	6.00
Haul Road	30.00	4.00	34.00
Safety Zone	4.70	14.22	18.92
Embankment/Garland Drain/ Diversion Of Public Road	14.45	8.27	22.72
Total	**531.64**	**88.23**	**619.87**

Post-mining land use details:

Description	Total Area in Ha	Description	Total Area in Ha
Quarry	425.22	Plantation on backfilled area	271.71
		Void	153.51
Dump	89.16	Plantation on External Dump	89.16
Nala	3.10	Nala	3.10
Workshop	14.48	Industrial Area	26.75
Chp	6.27		
Sub Stn./Office	6.00		
Haul Road	34.00	Haul Road	34.00
Safety Zone	18.92	Plantation on Safety Zone/Green belt	18.92
Embankment/Garland Drain/ Diversion Of Public Road	22.72	Embankment/Garland Drain/ Diversion Of Public Road	22.72
Total	**619.87**	**Total**	**619.87**

(ix) Total geological reserve is 486.50 MTe in Amrapali Block and 203.31 Mtes in Kishanpur Block. The mineable reserve is 114.59 MT, extractable reserve is 114.59 MT. The percent of extraction would be 100 %.

(x) 08 seams with thickness ranging from 1 m – 20 m are workable. Grade of coal is Grade-F, stripping ratio 0.99, while gradient is 3° to 7°.

(xi) The method of mining would be opencast method of mining with Surface miner and shovel-dumper combination.

(xii) The balance life of mine is 9 years.

(xiii) The project has 1 external OB dumps in an area of 89.16 Ha with 60 m height and 16.86 Mm3 of OB. 2 internal OB in an area of 271.71 ha with 109.62 Mm3 of OB is envisaged in the project.

(xiv) Total Quarry area is 425.22 Ha. The final mine void would be in 153.50 Ha with depth an average up to 90 m below GL. Backfilled quarry area of 271.71 Ha shall be reclaimed with plantation. Final mine void will be converted into water body.

(xv) Transportation of coal has been proposed by dumper from mine pithead, from surface to siding by tipping trucks.

(xvi) Reclamation Plan in an area of 379.25 Ha, comprising of 89.16Ha of external dump, 271.71 Ha of internal dump and 18.92 ha of green belt & safety zone.

(xvii) 531.64 ha of forestland has been reported to be involved in the project. Approval under the Forest (Conservation) Act, 1980 for diversion of 531.64 Ha of forestland for non-forestry purposes has been obtained vide MoEF&CC letter No. F.No.8-48/2008-FC Dt.12.10.2010.

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

(xix) The ground water level has been reported to be varying between 6.50 m to 10 m during pre-monsoon and between 0.95 m to 6.50 m during post-monsoon. Total water requirement for the project is 3357 KLD.

(xx) Application for obtaining the approval of the Central Ground Water Authority has been submitted vide no: 21-4/328/JH/MIN/2018 Dated: 29.12.2018.

(xxi) Public hearing for the project of 12 MTPA capacity in an area of 1426.08 Ha was conducted on 02.03.2003. Major issues raised in the public hearing include mitigation of air & water pollution, compensation, employment opportunity, medical facilities &provision of drinking water etc. Appropriate action to address the issues raised in the Public Hearing have already been taken.

(xxii) Consent to Operate/Establish for the existing capacity was obtained from the Jharkhand State PCB on 30.06.2019 and is valid till 30.06.2020.

(xxiii) Chundru and Barki rivers flowing west to east and north to south respectively control the drainage of the block. The Barki River marks the eastern boundary of the property with a safe distance of about 100 mtrs.

(xxiv) Regular monitoring of ambient air quality is being carried out on fortnightly basis. The documented report is submitted to JSPCB 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.

(xxv) No court cases or violation cases are pending against the project of the PP.

(xxvi) The project does not involve violation of the EIA Notification, 2006 and amendment issued there under. The coal production from the mine was started from the year 2013-14 onwards. No excess production of coal from the sanctioned capacity has been realized since the commencement of mining operations. The coal production, realized from the project, from 1993-94 onwards, is as under:

Year	Coal (Million tes)	OBR(Mcum)
2013-14	-	2.54
2014-15	2.55	17.74
2015-16	4.79	6.24

2016-17	6.23	4.19
2017-18	6.5	6.965
2018-19	10.2	12.2

(xxvii) The project involves 452 project-affected families. R&R of the PAPs will be done as per R&R Policy of CIL.

(xxviii)Total cost of the project is Rs. 85,811 Lakhs. Environment Management Cost is Approximately Rs. 8,900 lakhs

4. The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent. The EAC in 53rd meeting held on 20th February, 2020 has deliberated the proposal and has made due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

5. The sectoral Expert Appraisal Committee after detailed deliberations and in exercise of the provisions contained in para 7(ii) of the EIA Notification, 2006 and consideration of the parameters mentioned in the Ministry's OM dated 15th September, 2017, exempted the project from public hearing, and recommended for grant of Environment Clearance.

6. The Expert Appraisal Committee in 53rd meeting held on 20th February, 2020 has recommended the project for grant of Environment Clearance. Based on recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby **accords** approval for expansion of **Amrapali Opencast Coal Mine from 12 MTPA to 14.4 MTPA (Peak) in an ML area of 619.87 ha of M/s Central Coalfields Limited located in District Chatra (Jharkhand),** under the provision of clause 7(ii) of EIA Notification, 2006 and under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the following terms & conditions / specific conditions in addition to the standard environmental conditions notified by the ministry and mentioned below:

(i) EAC desired that the MoC may direct CIL subsidiaries to comply the EC/FC/CTO conditions strictly within certain time bound manner so that the mining operations will be environmentally sustainable/viable etc.

(ii) The project proponent shall obtain Consent to establish from the State Pollution Control Boards for the proposed peak capacity of 14.4 MTPA (Peak) prior to commencement of the increased production.

(iii) Transportation of coal from Coal Handling Plant shall be through covered trucks.

(iv) To control the production of dust at source, the crusher and in-pit belt conveyors shall be

provided with mist type sprinklers.

(v) PP shall implement inpit conveyor to railway siding through silo loading in three years.

(vi) Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at loading and unloading points, etc.

(vii) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.

(viii) Persons of nearby villages shall be given training on livelihood and skill development to make them employable.

(ix) Thick green belt of adequate width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check the dust pollution.

(x) Efforts shall be made for utilizing alternate sources of surface water, abandoned mines or else whatsoever and thus minimizing the dependability on a single source.

(xi) The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 14.4 MTPA (Peak).

(xii) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.

(xiii) A third party assessment of EC compliance shall be undertaken once in three years through agency like ICFRI /NEERI/IIT or any other expert agency identified by the Ministry.

(xiv) Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of particles

(xv) Compliance of the non-compliance/partial compliance conditions certified by Regional Office, Nagpur vide its Letter dated 4th December, 2019. The PP shall complete all non-compliance/partial compliance conditions in one year and the Action taken report shall be submitted to the Regional Office of the MoEF&CC.

(xvi) Project proponent to plant 100,000 nos. of native trees with broad leaves along the villages and 50,000 nos of native trees along transportation route to prevent the effect of air pollution in 2 years. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer.

(xvii) The activities and fund provisions for CER shall be made as per the guidelines issued by

the ministry regarding CER on 1st May, 2018.

(xviii) Project Proponent shall obtain blasting permission from DGMS for conducting mining operation near villages and also explore deployment of rock breakers of suitable capacity in the project to avoid blasting very near to villages. There shall be no damages caused to habitation/structures due to blasting activity.

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

(xx) Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table. The intersecting ground water table can only be commence after conducting detailed hydrogeological study and necessary permission from the CGWA. The Report on six monthly basis on changes in Ground water level and quality shall be submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.

(xxi) Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial/preventive measures taken accordingly. The Recommendations of National Institute for ensuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of antisnake venom including all other paramedical safeguards may be ensured before initiating the mining activities.

(xxii) Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".

(xxiii) The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.

(xxiv) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.

(xxv) 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.

(xxvi) Amrapali Railway siding shall be completed in 3 years and road transportation to Balumath railway siding will be stopped accordingly.

(xxvii) The distance of atleast 100 m shall be kept from Barki River and Bahut Chuha nala with no mine water discharge.

(xxviii) Project Proponent shall comply to the observation in show cause notice dated 12th December, 2018 regarding non-compliance of earlier EC and necessary report should be submitted to the Regional Office, Ranchi within stipulated time.

7.1 The grant of environmental clearance is further subject to compliance of the Standard EC conditions as under:

(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 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 statue be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM_{10}, $PM_{2.5}$, SO_2 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 $PM_{10}/PM_{2.5}$) such as haul road, loading/unloading and transfer points. Fugitive dust emissions from all sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central/State Pollution Control Board.

(iv) The transportation of coal shall be carried out as per the provisions and route envisaged in the approved Mining Plan or environment monitoring plan. Transportation of the coal through the existing road passing through any village shall be avoided. In case, it is proposed to construct a 'bypass' road, it should be so constructed so that the impact of sound, dust and accidents could be appropriately mitigated.

(v) Vehicular emissions shall be kept under control and regularly monitored. All the vehicles engaged in mining and allied activities shall operate only after obtaining 'PUC' certificate from the authorized pollution testing centres.

(vi) Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.

(vii) Coal handling plant shall be operated with effective control measures w.r.t. various environmental parameters. Environmental friendly sustainable technology should be implemented for mitigating such parameters.

(c) Water quality monitoring and preservation

(i) The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25th September, 2000 and as amended from time to time by the Central Pollution Control Board.

(ii) The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No.J-20012/1/2006-IA.11 (M) dated 27th May, 2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.

(iii) Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.

(iv) Monitoring of water quality upstream and downstream of water bodies shall be carried out once in six months and record of monitoring data shall be maintained and submitted to the Ministry of Environment, Forest and Climate Change/Regional Office.

(v) Ground water, excluding mine water, shall not be used for mining operations. Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources.

(vi) Catch and/or garland drains and siltation ponds in adequate numbers and appropriate size shall be constructed around the mine working, coal heaps & OB dumps to prevent run off of water and flow of sediments directly into the river and water bodies. Further, dump material shall be properly consolidated/ compacted and accumulation of water over dumps shall be avoided by providing adequate channels for flow of silt into the drains. The drains/ ponds so constructed shall be regularly de-silted particularly before onset of monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper settling of silt material. The water so collected in the sump shall be utilised for dust suppression and green belt development and other industrial use. Dimension of the retaining wall constructed, if any, at the toe of the OB

dumps within the mine to check run-off and siltation should be based on the rainfall data. The plantation of native species to be made between toe of the dump and adjacent field/habitation/water bodies.

(vii) Adequate groundwater recharge measures shall be taken up for augmentation of ground water. The project authorities shall meet water requirement of nearby village(s) after due treatment conforming to the specific requirement (standards).

(viii) Industrial waste water generated from CHP, workshop and other waste water, shall be properly collected and treated so as to conform to the standards prescribed under the standards prescribed under Water Act 1974 and Environment (Protection) Act, 1986 and the Rules made there under, and as amended from time to time. Adequate ETP /STP needs to be provided.

(ix) The water pumped out from the mine, after siltation, shall be utilized for industrial purpose *viz.* watering the mine area, roads, green belt development *etc.* The drains shall be regularly desilted particularly after monsoon and maintained properly.

(x) The surface drainage plan including surface water conservation plan for the area of influence affected by the said mining operations, considering the presence of river/rivulet/pond/lake etc, shall be prepared and implemented by the project proponent. The surface drainage plan and/or any diversion of natural water courses shall be as per the approved Mining Plan/EIA/EMP report and with due approval of the concerned State/GoI Authority. The construction of embankment to prevent any danger against inrush of surface water into the mine should be as per the approved Mining Plan and as per the permission of DGMS or any other authority as prescribed by the law.

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

(d) Noise and Vibration monitoring and prevention

(i) Adequate measures shall be taken for control of noise levels as per Noise Pollution Rules, 2016 in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with personal protective equipments (PPE) like ear plugs/muffs in conformity with the prescribed norms and guidelines in this regard. Adequate awareness programme for users to be conducted. Progress in usage of such accessories to be monitored.

(ii) Controlled blasting techniques shall be practiced in order to mitigate ground vibrations, fly rocks, noise and air blast etc., as per the guidelines prescribed by the DGMS.

(iii) The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.

(e) Mining Plan

(i) Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made there-under as applicable.

(ii) Mining shall be carried out as per the approved mining plan(including Mine Closure Plan) abiding by mining laws related to coal mining and the relevant circulars issued by Directorate General Mines Safety (DGMS).

(iii) No mining shall be carried out in forest land without obtaining Forestry Clearance as per Forest (Conservation) Act, 1980.

(iv) Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.

(f) Land reclamation

(i) Digital Survey of entire lease hold area/core zone using Satellite Remote Sensing survey shall be carried out at least once in three years for monitoring land use pattern and report in 1:50,000 scale or as notified by Ministry of Environment, Forest and Climate Change(MOEFCC) from time to time shall be submitted to MOEFCC/Regional Office (RO).

(ii) The final mine void depth should preferably be as per the approved Mine Closure Plan, and in case it exceeds 40 m, adequate engineering interventions shall be provided for sustenance of aquatic life therein. The remaining area shall be backfilled and covered with thick and alive top soil. Post-mining land be rendered usable for agricultural/forestry purposes and shall be diverted. Further action will be treated as specified in the guidelines for Preparation of Mine Closure Plan issued by the Ministry of Coal dated 27th August, 2009 and subsequent amendments.

(iii) The entire excavated area, backfilling, external OB dumping (including top soil) and afforestation plan shall be in conformity with the "during mining"/"post mining" land-use pattern, which is an integral part of the approved Mining Plan and the EIA/EMP submitted to this Ministry. Progressive compliance status vis-a-vis the post mining land use pattern shall be submitted to the MOEFCC/RO.

(iv) Fly ash shall be used for external dump of overburden, backfilling or stowing of mine as per provisions contained in clause (i) and (ii) of subparagraph (8) of fly ash notification issued vide SO 2804 (E) dated 3rd November, 2009 as amended from time to time. Efforts shall be made to utilize gypsum generated from Flue Gas Desulfurization (FGD), if any, along with fly ash for external dump of overburden, backfilling of mines.

Compliance report shall be submitted to Regional Office of MoEF&CC, CPCB and SPCB.

(v) Further, it may be ensured that as per the time schedule specified in mine closure plan it should remain live till the point of utilization. The topsoil shall temporarily be stored at earmarked site(s) only and shall not be kept unutilized. The top soil shall be used for land reclamation and plantation purposes. Active OB dumps shall be stabilised with native grass species to prevent erosion and surface run off. The other overburden dumps shall be vegetated with native flora species. The excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change/ Regional Office.

(vi) The project proponent shall make necessary alternative arrangements, if grazing land is involved in core zone, in consultation with the State government to provide alternate areas for livestock grazing, if any. In this context, the project proponent shall implement the directions of Hon'ble Supreme Court with regard to acquiring grazing land.

(g) Green Belt

(i) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered/endemic flora/fauna, if any, spotted/reported in the study area. The Action plan in this regard, if any, shall be prepared and implemented in consultation with the State Forest and Wildlife Department.

(ii) Greenbelt consisting of 3-tier plantation of width not less than 7.5 m shall be developed all along the mine lease area as soon as possible. The green belt comprising a mix of native species (endemic species should be given priority) shall be developed all along the major approach/ coal transportation roads.

(h) Public hearing and Human health issues

(i) Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & it's RO on six-monthly basis.

(ii) The project proponent shall undertake occupational health survey for initial and periodical medical examination of the personnel engaged in the project and maintain records accordingly as per the provisions of the Mines Rules, 1955 and DGMS circulars. Besides regular periodic health check-up, 20% of the personnel identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, as amended time to time.

(iii) Personnel (including outsourced employees) working in core zone shall wear protective respiratory devices and shall also be provided with adequate training and information on safety and health aspects.

(iv) Implementation of the action plan on the issues raised during the public hearing shall be ensured. The project proponent shall undertake all the tasks/measures as per the action plan submitted with budgetary provisions during the public hearing. Land oustees shall be compensated as per the norms laid down in the R&R policy of the company/State Government/Central Government, as applicable.

(v) The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.I1 (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

(i) Corporate Environment Responsibility

(i) The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No.22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.

(ii) The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violation of the environmental/forest/wildlife norms/conditions and/or shareholders/stake holders.

(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; PM_{10}, SO_2, NOx (ambient levels) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

(v) The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

(vi) The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.I1 (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.

(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.

8. The proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during presentation to the EAC. All the commitments made on the issues raised during public hearing shall also be implemented in letter and spirit.

9. The proponent shall obtain all necessary clearances/approvals that may be required before the start of the project. The Ministry or any other competent authority may stipulate any further condition for environmental protection. The Ministry or any other competent authority may stipulate any further condition for environmental protection.

10. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

11. The coal company/project proponent shall be liable to pay the compensation against the illegal mining, if any, and as raised by the respective State Governments at any point of time, in terms of the orders dated 2nd August, 2017 of Hon'ble Supreme Court in WP (Civil) No.114/2014 in the matter of 'Common Cause Vs Union of India & others.

12. The concerned State Government shall ensure no mining operations to commence till the entire compensation for illegal mining, if any, is paid by the project proponent through

their respective Department of Mining & Geology, in strict compliance of the judgment of Hon'ble Supreme Court.

13. This Environment Clearance shall not be operational till such time the project proponent complies with the above said judgment of Hon'ble Supreme Court, as applicable, and other statutory requirements.

14. This issues in supersession of the earlier EC granted vide letter dated 3rd January, 2006 an 28th February, 2020.

20.3.2020

(Manoj Kumar Gangeya)
Director

Copy to:

1. The Secretary, Ministry of Coal, Shastri Bhawan, New Delhi
2. The Secretary, Department of Environment & Forests, Government of Jharkhand, Secretariat, Ranchi
3. The Additional Principal Chief Conservator of Forests, Regional office (ECZ), Ministry of Environment & Forests, Bungalow No. A-2, Shyamali Colony, Ranchi - 834002
4. The Member Secretary, Jharkhand State Pollution Control Board, TA Building, HEC Complex, PO Dhurwa, Ranchi
5. CMD, M/s Central Coalfields Limited.
6. The Member Secretary, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
7. The Member Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi
8. The District Collector, Chatra, Government of Jharkhand

9. Monitoring File 10.Guard File 11.Record File. 12. Notice Board

20.3.2020

(Manoj Kumar Gangeya)
Director

Annexure R/9

भारत सरकार / Government of India
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
Ministry of Environment, Forest & Climate Change
एकीकृत क्षेत्रीय कार्यालय / Integrated Regional Office
रांची / Ranchi

फाइल संख्या 103–557 / आर.ओ.आर–2020 / 4447(H) दिनांक 13.01.2021

सेवा में

वैज्ञानिक 'ई' / अपर निदेशक (अनुवीक्षण सेल),
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय,
इंदिरा पर्यावरण भवन, जोर बाग रोड, अलीगंज,
नई दिल्ली – 110003

विषय: आम्रपाली ओपेनकास्ट कोल–माईन प्रोजेक्ट, मेसर्स सेंट्रल कोलफिल्ड लिमिटेड के अनुश्रवण प्रतिवेदन (मॉनिटरिंग रिपोर्ट) के संबंध में।

संदर्भ: मंत्रालय का पर्यावरणीय क्लीयरेंस पत्र सं0. J-11015/109/2003-IA.II(M), तिथि 20/03/2020

महोदय / महोदया,

उपर्युक्त विषय के संबंध में कहना है कि दिनांक 21.12.2020 को आम्रपाली ओपेनकास्ट कोल माईन प्रोजेक्ट, मेसर्स सेंट्रल कोलफिल्ड लिमिटेड, जिला चतरा का अनुश्रवण एकीकृत क्षेत्रीय कार्यालय, राँची द्वारा किया गया। तदनुसार अनुश्रवण प्रतिवेदन एतद द्वारा आवश्यक कार्रवाई हेतु संलग्न है।

विश्वासभाजन,

राजीव रंजन 13.01.21

(राजीव रंजन)
वैज्ञानिक 'ई' / अपर निदेशक

प्रतिलिपि:–

1. वैज्ञानिक 'एफ' / निदेशक, आई. ए डिविजन (कोल–माईनिंग), पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, इंदिरा पर्यावरण भवन, जोरबाग रोड, अलीगंज, नई दिल्ली– 110003।
2. सदस्य सचिव, झारखण्ड राज्य प्रदूषण नियंत्रण पर्षद्, टी. ए. डिवीजन भवन, एच. इ. सी. कैम्पस पी. ओ. धुर्वा, राँची– 834004, झारखण्ड।
3. प्रोजेक्ट ऑफिसर, आम्रपाली ओपेनकास्ट प्रोजेक्ट, मेसर्स सेंट्रल कोलफिल्ड लिमिटेड, होन्हे, पोस्ट सराडु, जिला–चतरा, झारखण्ड–825321।
4. उप महाप्रबंधक पर्यावरण, मेसर्स सेंट्रल कोलफिल्ड लिमिटेड, दरभंगा हाउस, राँची, झारखण्ड–834001।

राजीव रंजन 13.01.21

(राजीव रंजन)
वैज्ञानिक 'ई' / अपर निदेशक

पता– बगला नं. – ए–2, श्यामली कॉलोनी, राँची– 834002
Address - Bungalow No. A-2, Shyamli Colony, Ranchi – 834002

भारत सरकार / Government of India
पर्यावरण , वन एवं जलवायु परिवर्तन मंत्रालय
Ministry of Environment, Forest & Climate Change
एकीकृत क्षेत्रीय कार्यालय / Integrated Regional office
Bungalow No.A-2, Shyamli Colony, Ranchi – 834002
Tel: 0651-2410007, 2410002, E-mail: ro.ranchi-mef@gov.in

No.103-557/ROR-2020 / 4447 Dated: 13.01.2021

To,

Scientist 'E'/Additional Director,
Monitoring Cell, IA division,
Vayu Wing, 3rd Floor,
Ministry of Environment, Forest and Climate Change,
Indira Paryavaran Bhavan, Jorbagh Road,
Aliganj, New Delhi-110003

(Kind attention: Dr. Shruti Rai Bharadwaj)

Sub: Site inspection/ Monitoring report of Amrapali Opencast Coal mine from 12 MTPA to 14.4 MTPA (Peak) in an ML area of 619.87 ha of M/s Central Coalfields Ltd., located in Dist.: Chatra, Jharkhand.–reg.

Ref: Ministry's Clearance letter no. J-11015/109/2003-IA.II (M), dated 20/03/2020

Madam/Sir,

This is to inform that Amrapali Opencast Coal Mine Project of M/s Central Coalfields Ltd. located in District Chatra, Jharkhand was monitored by Integrated Regional Office, Ranchi on 21.12.2020 and the monitoring report is annexed herewith. Project proponent has informed that a proposal for expansion of the project is under consideration at MOEF&CC and requested for a certified compliance report from IRO Ranchi. The salient observations of the monitoring report are as follows:

Specific Conditions:

Following conditions are partially complied:

Condition vi: Some of fixed water sprinklers in line (at the weighbridge area) were not operational. Project authorities informed that due to pipe breakage some sprinklers were non operational. It was instructed to make arrangements so that water sprinklers remain operational regularly and it should be rectified as soon as some problems are encountered there. Fixed water sprinklers are also required in main coal dump area, haul roads adjacent to the coal dumps/weighbridges, haul road from mine to coal dumps/stocks other haul roads on which HEMM/trucks move frequently.

Grader/scraper was used for levelling, cleaning of road between Amrapali Mine project and Shivpur Railway siding. But coal dust/debris has been pushed on both sides of roads.Water tanker was observed sprinkling water on the coal transportation road to Amrapali siding but it did not seem sufficient. More water tankers should be deployed on the route for water sprinkling. Road sweeping machines can also be deployed. Steps should be taken to ensure that there is no coal spillage on the road because there were village dwellings/habitations adjacent to that road who would be adversely affected by the coal dust emissions there. Project Proponent has submitted running hours of 3 departmental (3rd tanker operational since 11.08.2020) and 13 contractual water tankers. Average running hours of departmental water tankers were approximately 4-5 hr/day which is less than satisfactory. The running hours of contractual water tankers were approximately 4 hr/day, which is less than satisfactory. Project Proponent should ensure 3-4hr/ shift of water sprinkling per tanker especially in dry seasons.

Condition ix: Some green belt development could be seen in the project. However thick green belt of adequate width at the final boundary in the downward direction has not been developed yet by project authorities to mitigate/check the dust pollution.

Condition x: Water was withdrawn from Dhudhmatia nala for water sprinkling in the project by water tankers. However, project authorities did not submit surface water / river water withdrawal permission from concerned department.

Condition xi: Groundwater was withdrawn for water utilization for water sprinkling, green belt development, etc. at the Shivpur railway siding area. However, project authorities did not submit any permission/approvals from competent authority (CGWA,etc.) for such Groundwater withdrawal there.

Condition xiv: Grassing and vegetation have been developed at many places on Bingalat O/B dump. However there are still many places on the Bingalat O/B dump where grassing and vegetation has not been developed. Grassing and vegetation should be developed urgently on the sides/slopes of O/B dump facing Dhudhmatia nala and on remaining portions also.

Condition xv: Efforts made for compliance. Work in progress. Project proponent has submitted Action taken report dated 16.12.20. Efforts have been made for compliance of many EC (old) conditions. However, there still remains some partially complied conditions as given below:

- There has been some improvement in grassing and vegetation on O/B dumps but still there remains portion where grassing and vegetation have not been developed. There are two external dump in the project, Honhe O/B dump and Binglat O/B dump. Partially complied, work in progress (Specific condition iii of earlier EC).
- Catch drain and siltation ponds around Honhe dump has been made. However, catch drains and siltation pond (in the remaining portions) around Binglat O/B dump (especially adjacent to Dhudhmatia nala) has to be made. Similarly Catch drains & siltation ponds around all coal dumps/ heaps /stocks needs to be constructed-Partially complied. (Specific condition iv of earlier EC).
- Retaining wall made around Honhe O/B dump. Retaining wall around Binglat O/B dump especially facing Dhudhmatia nala needs to be constructed- Being complied but further action needed. (Specific condition v of earlier EC).
- There have been improvements in green belt development. However,Avenue plantation on both side of haul road and green belt around bunker and surrounding area for coal stock has not been developed as per EIA/EMP report: Partially complied, efforts made for compliance but work in progress(Specific condition vi of earlier EC).
- Mitigative measures for preventing pollution in Dudhmatia nala (that flows in river Barki) needs to be taken- Partially complied, action taken for compliance. (Specific condition xiii of earlier EC).
- Project proponent has submitted health check up report of around 5 K.M radius of Magadh Amrapali area for five years, from 2013-2018. Comparative analysis of the same has not been submitted by PP.
- Working hours of water tankers remain less than satisfactory. Fixed water should be provided for main haul roads dust suppression. Being complied but further action needed. (General condition vi of earlier EC).

Condition xvi: Action being taken for compliance but more efforts needed for compliance of this EC condition till March 2022. More plantations needs to be done along the villages and transportation route for compliance of this EC condition.

Condition xvii: Activity wise expenditure(on items related to CER) i.e. details of actual expenditure incurred on CER has not been submitted to this office.

Condition xxvii: As per the plan submitted, Honhe External OB dump is within 100m distance from Bahut Chuha nala. Catch drains and siltation ponds have been made around Honhe OB dump to prevent any silt flowing in Bahut Chuha nala.

Condition xxviii: Though efforts have been made for compliance of old EC conditions still there remains some conditions that are still partially complied. See specific condition xv for descriptive compliance status.

Following conditions are being complied but further action needed:

Condition ii & (a) iv: PP has also reported that copy of application made for CTE of 14.4 MTPA vide no: 7811934 dated 11.03.2020 has been submitted to JSPCB. It implies project proponent has neither received CTE for 14.4 MTPA (Peak) production nor they have valid CTO for 14.4 MTPA production till date.

Condition iii: Tarpaulin covering was done on the coal transportation trucks. However, there was coal spillage on coal transportation routes. It may be due to improper covering, loading of coal till the top of truck, etc. It was instructed that a free board of minimum 5 cm in all loaded vehicles/trucks along with proper covering with impervious material to prevent escape of times should be followed for all coal transportation trucks.

Condition vii, xii, xxi & (h) ii: PME of contractual workers should also be submitted.

Condition viii: Project proponent should submit skill development activities undertaken exclusively at Amrapali OCP.

Condition xviii: Project Proponent (PP) has submitted a copy of blasting permission obtained from DGMS (no.Ranchi area/825-27). Permission obtained was valid upto three years from the date of issue of letter but in the submitted copy date of issue of letter is not legible.

Condition xxii, (h) v, (j) vi : Some of the stipulations of the OM that are relevant to the project are yet to be complied completely: Inadequate provision for prevention of coal dust and OB silt material flow into Dhudhmatia nala, Absence of permanent water sprinklers in main haulage road in mine, etc.

Condition xxiii: From the submitted data it is not clear whether the noise monitoring has been done at night or not.

Condition xxiv & (g) i: Project Proponent has submitted a copy of letter no. HOD(E&F)/20/1130 dated 18/02/2020 submitted to DFO, Chatra (South). In the submitted letter it was mentioned that application for EC has been made for 16.8 MTPA. However, in the preliminary conservation plan prepared by Institute of Forest Productivity, Ranchi targeted production of Amrapali OCP has been mentioned as 12.0 MTY. Project Proponent should clarify the above anomaly.

(a) Statutory Compliance

Following conditions are partially complied:

Condition v: Compliance same as specific condition xi.

Condition vi: Used oil drums were kept haphazardly without any cover/shade i.e in open space with some oil spilled on ground.

Following conditions are being complied but further action needed:

Condition iii: Project proponent(PP) should follow up and make efforts to get the site conservation plan approved by competent authority. Remaining compliance same as specific condition xxiv.

(b) Air quality monitoring and preservation

Following conditions are partially complied:

Condition iii: Tarpaulene covering was done on the coal transportation truck. However there was coal spillage on coal transportation routes. It may be due to improper covering, loading of coal till the top of truck, etc. It was instructed that a free board of minimum 5 cm in all loaded vehicles/trucks along with proper covering with impervious material to prevent escape of times should be followed for all coal transportation trucks. Some of fixed water sprinklers in line were not operational. Project authorities informed that due to pipe breakage some sprinklers were non operational. It was instructed to make arrangements so that water sprinklers remain operational regularly and it should be rectified as soon as some problems are encountered there. Fixed water sprinklers are also required in main coal dump area, haul roads adjacent to the coal dumps/weighbridges, haul road from mine to coal dumps/stocks other haul roads on which HEMM/trucks more frequently.

Grader/scraper was used for leveling, cleaning of road between Amrapali Mine project and Shivpur Railway siding. But coal dust/debris has been pushed on both sides of roads. Water tankers was observed sprinkling water on the coal transportation road to Amrapali siding but it did not seem sufficient. More water tankers should be deployed on the route for water sprinkling. Road sweeping machines can also be deployed. Steps should be taken to ensure that there is no coal spillage on the road because there were village dwellings/habitations adjacent to that road who would be adversely affected by the coal dust emissions there.

Surface miner was observed in the mine that was utilised for coal breakage/excavation. However, coal dust emissions was observed during the operation of surface miner. Also during loading of coal by loaders into trucks there was a lot of coal dust emissions. Even though water tankers were utilized for wetting of coal there was coal dust emissions during coal loading.

Condition vi: Fixed water sprinklers were installed at one of the coal stockpile/weighbridge area but few of those sprinklers wee operational. Other fixed water sprinklers there were not operational. There were no fixed water sprinklers/rain gun, etc. at main coal dump, other weighbridges/coal stocks.

Following conditions are being complied but further action needed:

Condition i & ii: Heavy metals monitoring data of Hg, Cd, Cr has not been submitted. Spontaneous combustion was observed at one place in O/B dump. It was instructed to eliminate spontaneous combustion in the mine project area.

Condition iv: It is mentioned in the addendum EIA/EMP of Amrapali OCP(page no 11) that coal is being transported by trucks to Shivpur railway siding which is at a distance of 07 km from project boundary. However in the copy/pages of the mining plan submitted by PP there is no mention of coal transportation route nor any drawing/plate attached showing the route.

(c) Water quality monitoring and preservation

Following conditions are partially complied:

Condition i: PP should submit the Effluent water monitoring data of workshop effluent.

Condition v: Compliance same as specific condition xi.

Condition vi: Action being taken for compliance but still partially complied. Overburden material was observed in the slopes facing Dhudhmatia nala at many places . It was instructed to develop grassing and vegetation urgently on the slopes facing Dhudhmatia nala. Catch drains were made adjacent to the coal dump in such a way that there was coal transportation road between coal dump and catch drains . Depth and width of catch drains near coal dump was not sufficient. Since there were no siltation ponds attached with those catch drains there were chances that coal dust water would flow

to Dhudhmatia nala adjacent to those drains. Also, there were open places between drains for vehicle movement and coal dust would flow from there to Dhudhmatia nala. It was instructed to project authorities to make full proof arrangement, Catch drains of appropriate depth and width, siltation ponds etc. to ensure that no coal dust flows into the Dhudhmatia nala. Catch drain and siltation pond was being constructed on one side of one of the coal dump on east side of mine pit . It was instructed to increase the depth of drains there and build siltation ponds also. At least four coal dumps/coal stockpile were observed in the project. Project authorities informed that the coal dump on the east side of mine pit would be discontinued very soon and no more coal would be stocked there. For the other coal stockpiles project authorities informed that due to weighbridge coal stocks accumulates and look like coal stockpile. It was instructed to construct catch drains and siltation ponds around these coal stocks/dumps also. Project authorities also showed catch drains around coal dumps on one of the weigh bridge . On the slopes from coal weighbridge area drains were constructed and connected to a newly constructed siltation pond. This was being done for preventing coal dust flow to downside in river Barki. However civil work was yet to complete there. Some gabbions may be required there for complete control of coal dust/silt flow.

Bingalat OB dump: Catch drains were observed on some portions of Bingalat O/B dump . However on some portions catch drains were not constructed. Siltation ponds were not constructed along with catch drains in the Bingalat O/B dump facing Bingalat village and Dhudhumatia nala. There were portions between Bingalat O/B dump and Dhudhmatia nala where catch drains siltation ponds and toe wall was not constructed and it was instructed to construct those urgently/immediately.

Honhe OB dump: Catch drains and siltation ponds were observed around Honhe O/B dump . Retaining wall at the toe of the dump was observed on most part of the Honhe O/B dump . Around Bingalat O/B dump, retaining wall at the toe of the dump was observed on many portions except a few portions especially along the side facing Dhudhmatia nala . Catch drains and siltation pond adjacent to the Shivpur railway siding had been silted/filled with coal dust. Also some coal dust was observed beyond the siltation pond there which means there was leakage of coal dust into the surroundings . Toe wall was observed between top soil dump and Honhe O/B dump. However there was no Catch drains/ toe wall between top soil dump and O/B dump in the south side.

Condition viii: Oil and grease trap was observed in the project. However, it appeared that it was not utilised for washing of HEMM/trucks there. The oil and grease trap was too small for such a large project where many HEMM and trucks were operational. Also, discharge from oil and grease trap was released from two sides into a pit that was very close to Dhudhmatia nala. There was no mechanism for water recirculation after cleaning (after elimination of oil & grease). Project authorities did not explain satisfactorily where they store the oil & grease taken out of the trap and how much quantity of oil and grease was collected for last couple of months. Project proponent should submit the Effluent water monitoring data of workshop.

Condition xi: A riverine/riparian ecosystem conservation and management plan has not been submitted by PP. Overburden material was observed in the slopes facing Dhudhmatia nala at many places. It was instructed to develop grassing and vegetation urgently on the slopes facing Dhudhmatia nala. Grassing and vegetation have been developed at many places on Bingalat O/B dump. However, there are still many places on the Bingalat O/B dump where grassing and vegetation has not been developed. Grassing and vegetation should be developed urgently on the sides/slopes of O/B dump facing Dhudhmatia nala and also on the remaining portions.

Catch drains were made adjacent to the coal dump in such a way that there was coal transportation road between coal dump and catch drains. Depth and width of catch drains near coal dump was not sufficient. Since there were no siltation ponds attached with those catch drains there were chances that coal dust water would flow to Dhudhmatia nala adjacent to those drains. Also, there were open places

between drains for vehicle movement and coal dust would flow from there to Dhudhmatia nala. It was instructed to project authorities to make full proof arrangement, Catch drains of appropriate depth and width, siltation ponds etc. to ensure that no coal dust flows into the Dhudhmatia nala. On the slopes from coal weighbridge area, drains were constructed and connected to a newly constructed siltation pond. This was being done for preventing coal dust flow to downside in river Barki. However civil work has not been completed yet. Some gabbions may be required there for complete control of coal dust/silt flow.

Following conditions are being complied but further action needed:

Condition ii: Environmental parameters were not displayed at suitable locations.

(d) Noise and Vibration monitoring and prevention

Following conditions are being complied but further action needed:

Condition i & iii: From the submitted data it is not clear whether the monitoring has been done at night or not. Total number of Ear plugs/Muffs provided in the year 2017, 2018, 2019 was not sumitted by PP.

(e) Mining Plan

Following conditions are partially complied:

Condition iii: Project proponent did not show any effects/process in the project done for reducing energy and fuel consumption & use of renewable energy.

Following conditions are being complied but further action needed:

Condition ii: In the backfilled area in the lower portion vehicles plied for various activities. However it was suggested that proper slope stability studies may be done so that there is no danger from dump failures/slope failures which may lead to risk to men and machinery.

(f) Land Reclamation

Following conditions are partially complied:

Condition v: Compliance same as specific condition xiv.

Following condition is assured to comply but further action needed:

Condition iii: PP should submit progressive compliance status vis-à-vis the post mining land use pattern as per this EC condition.

(g) Green Belt

Following conditions are partially complied:

Condition ii: Greenbelt consisting of 3-tier plantation of width not less than 7.5 m has not been developed. Some Green belt has been developed along the major approach/coal transport roads. However, there remains many areas along the above roads where green belt has to be developed.

(h) Public hearing and Human health issues

Following conditions are partially complied:

Condition i: Project proponent has not submitted weekly illumination monitoring data.

Following conditions are being complied but further action needed:

Condition iii: No details have been provided regarding training provided in the year 2018 and 2019. Project proponent should explain why only 41 dust masks were issued in the year 2019 and Nil dust masks were issued in the year 2016 and 2017. No details have been provided regarding training provided in the year 2018 and 2019.

Condition iv: Project authorities should take concrete steps for controlling air and water pollution as committed in Public hearing.

(i) Corporate Environment Responsibility

Following conditions are partially complied:

Condition i: Activity wise expenditure (on items related to CER) has not been submitted to this office.

Condition ii: In the environmental policy no details have been provided on 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. Project authorities should also submit documents to prove that there exists system of reporting infringements/ deviation/ violation of the environmental/forest/wildlife norms/conditions and/or shareholders /stake holders.

Condition iv: Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company (duly approved by competent authority) has not been submitted by project proponent. Expenditure data on environment protection measures and year wise progress of implementation of action plan should be submitted to IRO, Ranchi.

(j) Miscellaneous

Following conditions are being complied but further action needed:

Condition ii: Date of receipt of the EC letter by Mukhiya is not mentioned.

Condition iv: Display of criteria pollutants or critical sectoral parameters not displayed at a convenient location for disclosure to public.

Following condition complied but timeline not followed.

Condition i: The advertisement has been made in "Prabhat Khabar" and in "the pioneer" on 25.07.2020.

This issues with the approval of DDGF(C) and Regional Officer, IRO Ranchi.

Yours faithfully,

Encl: As above

(Rajeev Ranjan)
Scientist 'E'/ Additional Director

Copy to:

1. Scientist 'F'/Director, Impact Assessment Division (Coal Mining), (Kind attention: Shri Lalit Kumar Bokolia), Ministry of Environment, Forest & Climate Change, Indira Paryavaran Bhavan, Jorbagh Road, Aliganj, New Delhi-110003.
2. The Member Secretary, JSPCB, T.A Division Building, HEC campus Dhurwa, Ranchi-834004.
3. Project Officer, Amarpali OCP, M/s Central Coalfields Ltd., at Honhe & Post Saradu, Tandwa, Dist- Chatra, Jharkhand-825321. (Reply/action taken report to the above points must be submitted to RO Ranchi within 15 days of receipt of this letter).
4. Deputy General Manager & HOD (Environment), M/s Central Coalfields Ltd., Darbhanga House, Ranchi, Jharkhand-834001.

13.01.21

(Rajeev Ranjan)
Scientist 'E'/ Additional Director

MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE
INTEGRATED REGIONAL OFFICE, RANCHI
MONITORING REPORT

Part –I, Data Sheet

1. Project type	Mining (Coal Mining)		
2. Name of the Project			
3. No & date of Environment Clearance	EC- 11015/109/2003-IA.II(M) dated 20/03/2020		
4. Locations: District & State	Chatra, Jharkhand		
5. Address of correspondence	Project Officer At Honhe &Post- Saradu, Tandwa District-Chatra;Pin- 825321		
6.Salient features			
(a) Of the project	As per the EC "At present coal is being transported through Shivpur railway siding. A new railway siding, Amrapali siding adjacent to the mine boundary is under commissioning. In future, it is proposed to dispatch coal through Amrapali railway siding. Total number of permanent & temporary employment is approximately 650. The method of mining would be opencast method of mining with Surface miner and shovel-dumper combination. The balance life of mine is 9 years. Total cost of the project is Rs. 85,811 Lakhs". Surface miner and shovel dumper combination was deployed for opencast mining. Coal is transported with the help of trucks from project to Shivpur Railway siding.		
(b) Of the EMP	AS per EC "Total Quarry area is 425.22 Ha. The final mine void would be in 153.50 Ha with depth an average up to 90 m below GL. Backfilled quarry area of 271.71 Ha shall be reclaimed with plantation. Final mine voide will be converted into water body. Transportation of coal has been proposed by dumper from mine pithead, from surface to siding by tipping trucks. Reclamation plan in an area of 379.25Ha, comprising of 89.16 Ha of external dump, 277.71 Ha of internal dump and 18.92 ha of green belt & safety zone. No National Parks, Wildlife Sanctuaries and Eco-Sensitive Zones have been reported with 10 km boundary of the project. The ground water level has been reported to be varying between 6.50 m to 10 m during pre-monsoon and between 0.95 m to 6.50 m during post-monsoon. Total water requirement for the project is 3357 KLD. The project involves 452 project-affected families. R&R of the PAPs will be done as per R&R Policy of CIL. Environment Management Cost is approximately Rs. 89,00 lakhs".		
7. Project area	**Forest (ha)**	**Non-Forest (ha)**	**Total (ha)**
	531.64 ha (as per EC)	88.23 ha (as per EC)	619.87 ha (as per EC)

8. Break-up of project effected population, with enumeration of those, no. of housing or dwelling have been affected losing houses/dwelling units only, Agriculture land and less Labourers/artisans.	As per the data submitted by PP "452 Project Affected Family (PAF) are identified who are to be provided R&R benefit with the progress of mine in phased manner. Detailed assessment of the families as required is yet to be computed".
9. Project Cost /financial details	**Parameters/ Amount**
a. Project cost as originally planned and subsequent revised estimates and the years of price reference	Project Cost as per EC is Rs. 858.11 Crs. As per PP "No subsequent revised estimates done."
b. Allocations made for environmental management plans, with item wise and year wise breakup	Data not provided by PP.
c. Total expenditure on the project so far	As per P.P "Initial capital outlay- Rs 496.81 Crores"
d. Actual expenditure incurred on the environmental management plans so far	Data submitted by PP in proforma seems erroneous.
10. Forest land requirement: a. The status of approval for and Diversion of forest land for Non-forestry use b. The status of compensatory afforestation c. The status of clear felling d. Comments on the viability & Sustainability of Compensatory Afforestation programme in the Light of actual field experience so far.	FC Vide FL-08/48/2008/FC Dated 12.10.2010 for 531.64. As per PP "The total payment of Rs. 48,74,87,771/- has already been deposited to state forest department for compensatory afforestation". As per P.P this is 'Nil' As per P.P "To be carried out Forest Department"
11. The status of clear felling in non –forest area (such as submergence area of Reservoir approach roads) if any with Quantitative information.	As per P.P this is "Not applicable".
12Statusofconstructionof project	
a) Date of commencement	As per PP "7 February, 2009"
b) Date of completion	As per PP "Project is yet to be completed".
13. Date of site visits	
(a) Date of present visit	21.12.2020

PART - II

Descriptive Report on status of compliance to conditions of environmental clearance.

1	Name of the project	Amrapali Opencast Coal mine from 12 MTPA to 14.4 MTPA (Peak) in an ML area of 619.87 ha of M/s Central Coalfields Ltd., located in Dist.: Chatra, Jharkhand.
2	No & date of environmental clearance	EC- J-11015/109/2003-IA.II (M) dated 20/03/2020
3	Address for correspondence	
	(a) Registered Office	Project Officer, Amrapali OCP, M/s Central Coalfields Ltd., Dist. Chatra, Jharkhand-825321
4	Date of site visit:	
	Date of site visit by IRO Ranchi, MOEF&CC	21.12.2020

The project was visited on 21.12.2020 along with the representatives of Project. Based on the site visit, documents provided and discussion held with project officials, status of compliance of various environmental clearance conditions, is as follows:

Specific Condition

SN	Specific Condition	Compliance
i	EAC desired that the MoC may direct CIL subsidiaries to comply the EC/FC/CTO conditions strictly within certain time bound manner so that the mining operations will be environmentally sustainable/viable etc.	**Being complied.** Project authorities have mentioned in their six monthly compliance report that "The project assures to comply with conditions stipulated in EC/FC/CTO in a time-bound manner. The status of compliance & cost incurred is being submitted with six monthly compliance report to MoEF&CC & JSPCB periodically". Project proponent (PP)has submitted OM No. 43012-10-2019-CPAM dated 11/06/2019 issued by Ministry of Coal (MoC), regarding constitution of an apex committee under chairmanship of Additional Secretary, MoC to monitor the compliance of EC and FC conditions in coal mines. PP has also submitted letter no. CCL/HOD (E&F)/2019/348 dated 26.07.19 in which it is mentioned that a committee was constituted under the chairmanship of Area General Manager to review EC/FC compliance periodically, etc.
ii	The project proponent shall obtain Consent to establish from the State Pollution Control Boards for the proposed peak capacity of 14.4 MTPA (Peak) prior to commencement of the increased production	**Being complied but further action needed.** Project proponent has submitted a copy of Consent to Operate obtained from Jharkhand State Pollution Control Board (JSPCB) for 14.4 MTPA issued vide Ref No: JSPCB/HO/RNC/CTO-7819614/2020/712 Dated: 26.03.2020 which was valid up to 30.04.2020. Later JSPCB vide letter no: B-100 Dated: 31.08.2020 extended the validity of the consent to operate till 30.09.2020. Project proponent has also submitted a copy of Consent to Operate obtained from JSPCB for 12

		MTPA issued vide Ref No: JSPCB/HO/RNC/ CTO-6645615/2020/1408 Dated: 01.09.2020, which is valid up to 30.06.2021. **PP has also reported that copy of application made for CTE of 14.4 MTPA vide no: 7811934 dated 11.03.2020 has been submitted to JSPCB. It implies project proponent has neither received CTE for 14.4 MTPA (Peak) production nor they have valid CTO for 14.4 MTPA production till date.**
iii	Transportation of coal from Coal Handling Plant shall be through covered trucks.	**Being complied but further action needed.** Project authorities have mentioned in their six monthly compliance report that "The transportation of coal from mines is being done through covered trucks". **Tarpaulin covering was done on the coal transportation trucks (see photo 18). However there was coal spillage on coal transportation routes. It may be due to improper covering, loading of coal till the top of truck, etc. It was instructed that a free board of minimum 5 cm in all loaded vehicles/trucks along with proper covering with impervious material to prevent escape of times should be followed for all coal transportation trucks.**
iv	To control the production of dust at source, the crusher and in-pit belt conveyors shall be provided with mist type sprinklers.	**Assured to comply.** Project authorities have mentioned in their six monthly compliance report that "The condition shall be complied when construction of crusher and in-pit belt conveyors will be completed".
v	PP shall implement in pit conveyor to railway siding through silo loading in three years.	**Assured to comply.** Project authorities have mentioned in their six monthly compliance report that "The tender for Amrapali CHP (12 MTY) has been floated on 06.05.2020. The project is under construction phase and shall be completed in the stipulated timeline".
vi	Mitigating measures shall be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient water sprinklers. Adequate corrective measures shall be undertaken to control dust emissions, which would include mechanized sweeping, water sprinkling/mist spraying on haul roads and loading sites, long range misting/fogging arrangement, wind barrier wall and vertical greenery system, green belt, dust suppression arrangement at loading and unloading points, etc.	**Partially complied.** Few fixed water sprinklers were operational for some part in the one of weighbridge/coal stock area (South of the pit) (see photo 22). However, **some of fixed water sprinklers in line were not operational (see photo 22). Project authorities informed that due to pipe breakage some sprinklers were non operational. It was instructed to make arrangements so that water sprinklers remain operational regularly and it should be rectified as soon as some problems are encountered there. Fixed water sprinklers are also required in main coal dump area, haul roads adjacent to the coal dumps/weighbridges, haul road from mine to coal dumps/stocks other haul roads on which HEMM/trucks move frequently.** **Grader/scraper was used for leveling, cleaning of road between Amrapali Mine project and Shivpur**

<table>
<tr><td></td><td></td><td>Railway siding (see photo 43). But coal dust/debris has been pushed on both sides of roads (see photos 42, 45, 54 & 55).
Water tankers was observed sprinkling water on the coal transportation road to Amrapali siding but it did not seem sufficient. More water tankers should be deployed on the route for water sprinkling. Road sweeping machines can also be deployed. Steps should be taken to ensure that there is no coal spillage on the road because there were village dwellings/habitations adjacent to that road who would be adversely affected by the coal dust emissions there.
Project Proponent has submitted running hours of 3 departmental (3rd tanker since 11.08.2020) and 13 contractual water tankers. Average running hours of departmental water tankers were approximately 4-5 hr/day which is less than satisfactory. The running hours of contractual water tankers were approximately 4 hr/day, which is less than satisfactory. Project Proponent should ensure 3-4hr/ shift of water sprinkling per tanker especially in dry seasons.</td></tr>
<tr><td>vii</td><td>Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.</td><td>Being complied but further action needed. Project authorities have mentioned in their six monthly compliance report that "Continuous monitoring of occupational safety and other health hazards is being undertaken. Initial Medical Examination (IME) & Periodic Medical Examination(PME) of workers is being carried out. The details of IME/PME is given below:
<table>
<tr><th>Year</th><th>IME departmental</th><th>IME Contractual</th><th>PME</th></tr>
<tr><td>2015</td><td>122</td><td>210</td><td>11</td></tr>
<tr><td>2016</td><td>15</td><td>47</td><td>21</td></tr>
<tr><td>2017</td><td>21</td><td>126</td><td>21</td></tr>
<tr><td>2018</td><td>11</td><td>384</td><td>26</td></tr>
<tr><td>2019</td><td>07</td><td>192</td><td>78</td></tr>
<tr><td>2020</td><td>01</td><td>105</td><td>53</td></tr>
</table>
PME of contractual workers should also be submitted.</td></tr>
<tr><td>viii</td><td>Persons of nearby villages shall be given training on livelihood and skill development to make them employable.</td><td>Being complied but further action needed: Project authorities have mentioned in their six monthly compliance report that "The training on livelihood and skill development is regularly been undertaken in CCL & Amrapali area for making nearby villagers more employable. The details of such training undertaken are enclosed". Skill development activities and expenditure details of the year 2016-17, 2017-18 and 2018-19 has been submitted. Project proponent has not submitted skill development activities and expenditure details of the year 2019-20 and 2020-21 (Up to December 2020).</td></tr>
</table>

ix	Thick green belt of adequate width at the final boundary in the down wind direction of the project site shall be developed to mitigate/check the dust pollution.	**Partially complied.** Project authorities have mentioned in their six monthly compliance report that "Around 25,134 plants have been planted for raising of Green Belt / Block plantation". **Some green belt development could be seen in the project. However thick green belt of adequate width at the final boundary in the downward direction has not been developed yet by project authorities to mitigate/check the dust pollution.**
x	Efforts shall be made for utilizing alternate sources of surface water, abandoned mines or else whatsoever and thus minimizing the dependability on a single source.	**Partially complied:** Project authorities have mentioned in their six monthly compliance report that "For mining purposes, water stored in mining pits is utilized. For drinking purpose water from dugwell is being utilized". **Water was withdrawn from Dhudhmatia nala for water sprinkling in the project by water tankers (see photo 09). However project authorities did not submit surface water / river water withdrawal permission from concerned department.**
xi	The company shall obtain approval of CGWA for use of groundwater for mining operations at its enhanced capacity of 14.4 MTPA (Peak).	**Partially complied:** Project authorities have mentioned in their six monthly compliance report that "Amrapali OCP falls in Chatra District, which falls in "Safe" category as per CGWA categorization. Application for obtaining NoC was made earlier to Central Ground Water Authority for taking NOC vide ref no:-21-4/328/JH/MIN/2018 dated 29.12.2018. The application was approved by the Regional Office of Central Ground Water Board Mid Eastern Region and was under processing of issuance of final issuance of NoC. A fresh application was submitted as per the Ministry of Jal Shakti Notification S.O. No: 3289(E) Dated: 24.09.2020 vide application No: 21-4/699/JH/MIN/2020 Dated: 29.11.2020 for Amrapali Expansion OCP. The application is under consideration at CGWA office". **Groundwater was withdrawn for water utilization for water sprinkling, green belt development, etc. at the Shivpur railway siding area. However project authorities did not submit any permission/approvals from competent authority (CGWA, etc.) for such Groundwater withdrawal.**
xii	Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.	**Compliance same as in specific condition vii.**
xiii	A third party assessment of EC compliance shall be undertaken once in three years through agency like ICFRI /NEERI/IIT or any other expert agency identified by the Ministry.	**Assured to comply.** Project authorities have mentioned in their six monthly compliance report that "As directed, a third party assessment shall be carried out for Amrapali OCP undertaken once in three years through experts agency recognized by MoEF&CC."
xiv	Active OB Dump should not be kept barren/open and should be covered by temporary grass to avoid air born of	**Partially complied. Grassing and vegetation have been developed at many places on Bingalat O/B dump (see photos 06 & 30). However there are still**

	particles	**many places on the Bingalat O/B dump where grassing and vegetation has not been developed (see photos 26, 27, 28 & 30). Grassing and vegetation should be developed urgently on the sides/slopes of O/B dump facing Dhudhmatia nala (see photos 26 & 27) and on remaining portions also.**
xv	Compliance of the non-compliance/ partial compliance conditions certified by Regional Office, Ranchi vide its Letter dated 4th December, 2019. The PP shall complete all non-compliance/partial compliance conditions in one year and the Action taken report shall be submitted to the Regional Office of the MoEF&CC.	**Partially complied. Efforts made for compliance. Work in progress. Project proponent has submitted Action taken report dated 16.12.20. Efforts have been made for compliance of many EC (old) conditions. However, there still remains some partially complied conditions as given below:** **a) There has been some improvement in grassing and vegetation on O/B dumps but still there remains portion where grassing and vegetation have not been developed. There are two external dump in the project, Honhe O/B dump and Binglat O/B dump. Partially complied,work in progress (Specific condition iii of earlier EC)** **b) Catch drain and siltation ponds around Honhe dump has been made. However, catch drains and siltation pond (in the remaining portions) around Binglat O/B dump has to be made. Similarly Catch drains & siltation ponds around all coal dumps/ heaps /stocks needs to be constructed- Partially complied. (Specific condition iv of earlier EC)** **c) Retaining wall made around Honhe O/B dump. Retaining wall around Binglat O/B dump especially facing Dhudhmatia nala needs to be constructed- Being complied but further action needed. (Specific condition v of earlier EC)** **d) There have been improvements in green belt development. Avenue plantation on both side of haul road and green belt around bunker and surrounding area for coal stock has not been developed as per EIA/EMP report: Partially complied, efforts made for compliance but work in progress(Specific condition vi of earlier EC)** **e) However mitigative measures for preventing pollution in Dudhmatia nala (that flows in river Barki) needs to be taken- Partially complied, action taken for compliance. (Specific condition xiii of earlier EC)** **f)Project proponent has submitted health check up report of around 5 K.M radius of Magadh Amrapali area for five years, from 2013-2018. Comparative analysis of the same has not been submitted by PP.** **g) Working hours of water tankers remain less than satisfactory. Fixed water should be provided**

		for main haul roads for dust suppression. Being complied but further action needed. (General condition vi of earlier EC).
xvi	Project proponent to plant 1,00,000 nos. of native trees with broad leaves along the 100,000 nos. of native trees with broad leaves along the villages and 50,000 nos of native trees along transportation route to prevent the effect of air pollution in 2 years. After completion of tree plantation, number of trees shall be duly endorsed from District Forest Officer.	**Partially complied. Action being taken for compliance but more efforts needed for compliance of this EC condition till March 2022.** Project authorities have mentioned in their six monthly compliance report that "in Monsoon 2016, as per the MOU for raising of green belt between CCL and State Forest department work awarded vide no:-CCL/Dy.GM(Forest)/GA/W.O./16-Plantation/ Chatra South/2016/67 dated 23.05.16. 1200 numbers of native species have been planted along the NBCC road of Amrapali OCP in 3 Km of length. In 2018, 1000 numbers of native species in consultation with Range Forest Officer, Simariya, Jharkhand have been planted near Ambey&Mahalaxmi camp in Amrapali Project. (ii)Fruit bearing Plants of 150 numbers have been planted in at Govt. School Honhe& St. Joseph School Mander. Plantation of 850 numbers of native species along the Haul road of Amrapali project to check the fugitive dust have been done departmentally in 2018 in consultation with State Forest Department. In Monsoon 2019, 934 nos. of drought hardy native species have been planted departmentally at different locations of Amrapali Project. As per MOU for Monsoon plantation 2020, work awarded vide no: CCL/HOD/Env.&Forest/ GA/W.O./2020-Plantation/Chatra-South/2020/1282-1302 dated: 11.05.2020 in 0.8 Ha area (for planting of 2000 Native species) completed." Some plantations was showed by Project authorities near Dhudhmatia nala and also adjacent to it at few places (see photos 05). **More plantations needs to be done along the villages and transportation route for compliance of this EC condition.**
xvii	The activities and fund provisions for CER shall be made as per the guidelines issued by the ministry regarding CER on 1st May, 2018.	**Partially complied.**Project authorities have mentioned in their Six monthly compliance report that "A fund provision of Rs. 4.29 Crore has been allocated for Corporate Environment Responsibility". **However activity wise expenditure(on items related to CER) i.e. details of actual expenditure incurred on CER has not been submitted to this office.**
xviii	Project Proponent shall obtain blasting permission from DGMS for conducting mining operation near villages and also explore deployment of rock breakers of suitable capacity in the project to avoid blasting very near to villages. There shall be no damages caused to habitation/	**Being complied but further action needed.** Project authorities have mentioned in their six monthly compliance report that "All the statutory provisions laid down in The Mines Act 1952, Coal Mine Regulation 2017 and specific permission from DGMS relating to mining in general and opencast mining in particular have to be adhered to and implemented in

	structures due to blasting activity.	order to maintain day to day safety". Project authorities have submitted copies of ground vibration PPV,frequency,etc. study. **Project Proponent (PP) has submitted a copy of blasting permission obtained from DGMS(no.Ranchi area/825-27). Permission obtained was valid upto three years from the date of issue of letter but in the submitted copy date of issue of letter is not legible.**
xix	The Project Proponent shall comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors. State Government shall ensure that the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department in strict compliance of judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.	**Assured to comply.** Project authorities have mentioned in their six monthly compliance report that "Project proponent assures to comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014, if any, issued to Amrapali Project. No such direction has been issued to Amrapali OCP till date".
xx	Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) in case of intersecting the Ground water table.The intersecting ground water table can only be commence after conducting detailed hydro geological study and necessary permission from the CGWA. The Report on six monthly basis on changes in Ground water level and quality shall be submitted to the Regional Office of the Ministry, CGWA and State Pollution Control Board.	**Project Proponent should submit a copy of Ground water level and quality report to the CGWA and State Pollution Control Board.** Remaining compliance same as Compliance same as in condition xi.

xxi	Proponent shall appoint an Occupational Health Specialist for Regular and Periodical medical examination of the workers engaged in the Project and maintain records accordingly; also, Occupational health check-ups for workers having some ailments like BP, diabetes, habitual smoking, etc. shall be undertaken once in six months and necessary remedial /preventive measures taken accordingly. The Recommendations of National Institutc for cnsuring good occupational environment for mine workers shall be implemented; The prevention measure for burns, malaria and provision of anti snake venom including all other paramedical safeguards may be ensured before initiating the mining activities.	**Being complied but further action needed.** Compliance of some points same as condition vii. Project authorities have mentioned in their six monthly compliance report that "It is also proposed to open a Hospital dedicated to Amrapali OCP. The tender has been floated for award of work at an estimated cost of Rs. 8.13 Crores. The work is expected to be completed by April-2022". **PME of contractual workers should also be submitted.** One First Aid station was observed in the Amrapali project (see photo 03). Project authorities informed that for IME, PME the workers/officials are sent to Dakra which is approx 35 Km far from there.
xxi i	Project Proponent shall follow the mitigation measures provided in Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".	**Being complied but further action needed.** Project Proponent has submitted compliance status of the Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014. **Some of the stipulations of the OM that are relevant to the project are yet to be complied completely: Prevention of coal dust and OB silt material flow into Dhudhmatia nala, Absence of permanent water sprinklers in main haulage road in mine, etc.**
xxi ii	The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.	**Being complied but further action needed.** Project authorities have mentioned in their six monthly compliance report that "It is ensured that noise levels are being maintained within the prescribed standards. Floodlights are oriented along the mining areas & transportation routes and it is ensured that habitations are not disturbed due to lights or noise". Noise level monitoring data of two quarter June 2020 and September 2020 has been submitted by Project Proponent. Monitoring has been done by M/s CMPDIL. Noise level data ranges from 40.7 dB(A) to 62.4 dB(A). **From the submitted data it is not clear whether the noise monitoring has been done at night or not.**
xxi v	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to	**Being complied but further action needed.** Project authorities have mentioned in their six monthly compliance report that "An action plan for conservation of endangered flora and fauna has been prepared and submitted to State Forest Department (DFO (Chatra)) & PCCF (WL) for approval. This action plan shall be implemented as per the recommendation and consultation of State Forest and Wildlife Department".

	the Ministry of Environment, Forest and Climate Change and its Regional Office.	**Project Proponent has submitted a copy of letter no. HOD(E&F)/20/1130 dated 18/02/2020 submitted to DFO, Chatra (South). In the submitted letter it was mentioned that application for EC has been made for 16.8 MTPA. However, in the preliminary conservation plan prepared by Institute of Forest Productivity, Ranchi targeted production of Amrapali OCP has been mentioned as 12.0 MTY. Project Proponent should clarify the above anomaly.**
xxv	Hon'ble Supreme Court in an Writ Petition(s) Civil No. 114/2014, Common Cause vsUnion 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.	**Assured to comply.** Project authorities have mentioned in their six monthly compliance report that "Project proponent assure to comply with the condition and assure that after ceasing mining operations, undertake re-grassing of the mining area and any other area which may have been disturbed due to 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 CCL. Progress report shall also be submitted to the Regional Office of MoEF&CC periodically".
xxvi	Amrapali Railway siding shall be completed in 3 years and road transportation to Balumath railway siding will be stopped accordingly.	**Assured to comply.** Project authorities have mentioned in their six monthly compliance report that "the tender for Amrapali CHP (12 MTY) has been floated on 09.05.2020. The project is under construction phase and shall be completed in the stipulated timeline".
xxvii	The distance of at least 100 m shall be kept from Barki River and Bahut Chuha nala with no mine water discharge.	**Partially complied.** Project authorities have mentioned in their six monthly compliance report that "Distance of more than 100 meter is being maintained from Barki River & nallah. No mining discharge is being made in the nallah & river". **As per the plan submitted Honhe External OB dump is within 100m distance from Bahut Chuha nala. Catch drains and siltation ponds have been made around Honhe OB dump to prevent any silt flowing in Bahut Chuha nala.**
xxviii	Project Proponent shall comply to the observation in show cause notice dated 12th December, 2018 regarding non-compliance of earlier EC and necessary report should be submitted to the Regional	**Partially complied.** Project Proponent has submitted compliance status of observations made in show cause notice dated 12th December, 2018 and updated observations and remarks of this office was communicated to Ministry vide letter no. 103-

	Office, Ranchi within stipulated time.	80/05/EPE/3638 dated 04.12.2019. Project authorities have also submitted an action taken report letter no. PO/Amrapali/MoEF&CC Compliance/ 2020-21/2378A dated 16.12.2020. **Though efforts have been made for compliance of old EC conditions still there remains some conditions that are still partially complied. See specific condition xv for descriptive compliance status.**

Standard EC Conditions		
SN	**Specific Condition**	**Compliance**
	(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	**Complied.** Project authorities have mentioned in their six monthly compliance report that "The total project area of Amrapali OCP is 619.87 Ha out of which the total Forest land is 531.64 Ha that has been granted stage-II vide no F. No. 8-48/2008-FC Dated12.10.2010". A copy of letter no. 8-48/2008-FC dated 12.10.2010 has been submitted to this office.
ii	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.	Project authorities have mentioned in their six monthly compliance report that "This condition is not applicable for Amrapali OCP".
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).	**Being complied but further action needed.** Project authorities have mentioned in their six monthly compliance report that "An action plan for conservation of endangered flora and fauna has been prepared and submitted to State Forest Department (DFO- Chatra) & PCCF (WL) for approval. This action plan shall be implemented as per the recommendation and consultation of State Forest and Wildlife Department." **Project proponent should follow up and make efforts to get the site conservation plan approved by competent authority.** **Project Proponent has submitted a copy of letter no. HOD(E&F)/20/1130 dated 18/02/2020 submitted to DFO, Chatra (South). In the submitted letter it was mentioned that application for EC has been made for 16.8 MTPA. However, in the preliminary conservation plan prepared by Institute of Forest Productivity, Ranchi targeted production of Amrapali OCP has been mentioned as 12.0 MTY. Project Proponent should clarify the anomaly observed.**
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	Compliance same as specific condition ii.

	concerned State pollution Control Board/ Committee.	
v	The project proponent shall obtain the necessary permission from the Central Ground Water Authority.	**Partially complied.** Amrapali OCP falls in Chatra District, which falls in "Safe" category as per CGWA categorization. Application for obtaining NoC was made earlier to Central Ground Water Authority for taking NOC vide ref no:-21- 4/328/JH/MIN/2018 dated 29.12.2018. The application was approved by the Regional Office of Central Ground Water Board Mid Eastern Region and was under processing of issuance of final issuance of NoC. A fresh application was submitted as per the Ministry of Jal Shakti Notification S.O. No: 3289(E) Dated: 24.09.2020 vide application No: 21-4/699/JH/MIN/2020 Dated: 29.11.2020 for Amrapali Expansion OCP. The application is under consideration at CGWA office. **Groundwater was withdrawn for water utilization for water sprinkling, green belt development, etc at the Shivpur railway siding area. However project authorities did not submit any permission/approvals from competent authority (CGWA, etc.) for such Groundwater withdrawal.**
vi	Solid/hazardous waste generated in the mines need to be addressed in accordance to the Solid Waste Management Rules, 2016/Hazardous & Other Waste Management Rules, 2016.	**Partially complied.** Project authorities have mentioned in their six monthly compliance report that "Solid & hazardous waste generated in the mines are addressed in accordance to the Solid Waste Management Rules, 2016/Hazardous & Other Waste Management Rules, 2016". **Used oil drums were kept haphazardly without any cover/shade i.e in open space with some oil spilled on ground (see photo 60).** Project Proponent has submitted a copy of application submitted to Jharkhand State Pollution Control Board to obtain Hazardous waste authorization.
(b) Air quality monitoring and preservation		

i	Continuous ambient air quality monitoring stations as prescribed in the statuette be established in the core zone as well as in the buffer zone for monitoring of pollutants, namely PM10, PM2.5, SO2 and NOx. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Online ambient air quality monitoring stations may also be installed in addition to the regular monitoring stations as per the requirement and/or in consultation with the SPCB. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc to be carried out at least once in six months.	**Being complied but further action needed.** Project proponent has submitted Ambient Air quality monitoring data of quarter ending June and September 2020. Monitoring has been done by M/s CMPDIL at 4 locations. Monitoring has been done at Site office, Weight bridge, Binglath check post, Weight bridge near Hone nala. The level of total particulate matter (PM_{10}+>PM_{10}) ranges from 118 to 336 $\mu g/m^3$, PM_{10} ranges from 55 to 187 $\mu g/m^3$, $PM_{2.5}$ ranges from 21 to 87 $\mu g/m^3$ SOx and NOx were found within the stipulated limit. Heavy metals monitoring data of Pb, As, Ni has been submitted by project proponent. Monitoring has been done by M/s Central Mine Planning & Design Institute Limited (CMPDI) and the parameters were found within limit. **However, heavy metals monitoring data of Hg, Cd, Cr has not been submitted.** Project authorities have mentioned in their six monthly compliance report that "The supply order of the installation of continuous PM10 analyzer has been issued to M/s Environment SA Pvt. Ltd. for installation of the same at 25 numbers of railway siding including Balumath Railway Siding. The procurement of CAAQMS system at Project Office of Amrapali OCP (Core Zone of Amrapali OCP) & Project Office of Magadh OCP(Buffer zone of Amrapali OCP) is also under progress from GeM portal of Govt. of India". **Spontaneous combustion was observed at one place in O/B dump (see photo 36). It was instructed to eliminate spontaneous combustion in the mine project area.**
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.	Compliance same as in condition no. b (i).
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	**Partially complied**. Project authorities have mentioned in their six monthly compliance report that "Transportation of coal, to the extent permitted by road, is being carried out by covered trucks". **Tarpaulene covering was done on the coal transportation trucks (see photo 18).**

	pollution (with higher values of PM10/PM25) 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.	**However there was coal spillage on coal transportation routes. It may be due to improper covering, loading of coal till the top of truck, etc. It was instructed that a free board of minimum 5 cm in all loaded vehicles/trucks along with proper covering with impervious material to prevent escape of times should be followed for all coal transportation trucks.** Few fixed water sprinklers were operational for some part in the one of weighbridge/coal stock area (see photo 22). **However, some of fixed water sprinklers in line were not operational (see photo 22). Project authorities informed that due to pipe breakage some sprinklers were non operational. It was instructed to make arrangements so that water sprinklers remain operational regularly and it should be rectified as soon as some problems are encountered there.** **Fixed water sprinklers are also required in main coal dump area, haul roads adjacent to the coal dumps/weighbridges, haul road from mine to coal dumps/stocks other haul roads on which HEMM/trucks more frequently.** **Grader/scraper was used for leveling, cleaning of road between Amrapali Mine project and Shivpur Railway siding (see photo 43). But coal dust/debris has been pushed on both sides of roads (see photos 42, 45, 54 & 55). Water tankers was observed sprinkling water on the coal transportation road to Amrapali siding but it did not seem sufficient. More water tankers should be deployed on the route for water sprinkling. Road sweeping machines can also be deployed. Steps should be taken to ensure that there is no coal spillage on the road because there were village dwellings/habitations adjacent to that road who would be adversely affected by the coal dust emissions there. Surface miner was observed in the mine that was utilised for coal breakage/excavation (see photo 35). However coal dust emissions was observed during the operation of surface miner. Also during loading of coal by loaders into trucks there was a lot of coal dust emissions (see photos 39 & 40). Even though water tankers were utilized for wetting of coal there (see photos 38) there was coal dust emissions during coal loading.**
iv	The transportation of coal shall be carried	**Being complied but further action needed.**

	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 bc avoidcd. In casc, 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.	Project authorities have mentioned in their six monthly compliance report that"the transportation of coal is being carried out as per the provisions and route envisaged in the approved Mining Plan or environment monitoring plan". **It is mentioned in the addendum EIA/EMP of Amrapali OCP(page no 11) that coal is being transported by trucks to Shivpur railway siding which is at a distance of 07 km from project boundary. However in the copy/pages of the mining plan submitted by PP there is no mcntion of coal transportation route nor any drawing/plate attached showing the route.**
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.	**Being complied.** Project authorities have mentioned in their six monthly compliance report that "All measures are being undertaken to keep vehicular emission under control. All the vehicles engaged in mining and allied activities are being operated only after obtaining PUC certificate from the authorized pollution testing centers". Copies of few valid PUC certificates have been submitted by project proponent.
vi	Coal stock pile/crusher/feeder and breaker material transfer points shall invariably be provided with dust suppression system. Belt-conveyors shall be fully covered to avoid air borne dust. Side cladding all along the conveyor gantry should be made to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.	**Partially complied.** Project authorities have mentioned in their six monthly compliance report that "The condition shall be complied when construction of crusher and in-pit belt conveyors will be completed. All measures for environmental protection shall be undertaken as also listed in the tender document of Amrapali CHP". **Fixed water sprinklers were installed at one of the coal stockpile/weighbridge area but few of those sprinklers wee operational.Other fixed water sprinklers there were not operational (see photos 22 &23).There were no fixed water sprinklers/rain gun, etc. at main coal dump, other weighbridges/coal stocks.** Drill are wet operated (see photo 41). At the Shivpur railway siding wind screen was observed (see photos 49 & 50) although it was torn/broken at few place. Plantations along the sides of siding was also observed (see photo 50 & 52).
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.	**Assured to comply**. Project authorities have mentioned in their six monthly compliance report that "The condition shall be complied when construction of crusher and in-pit belt conveyors will be completed. All measures for environmental protection shall be undertaken as also listed in the tender document of Amrapali CHP".
(c) Water quality monitoring and preservation		
(i)	The effluent discharge (mine waste water, workshop effluent) shall be monitored in	**Partially complied.** Effluent water monitoring data of two quarter June 2020 and September

	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.	2020 has been submitted by Project Proponent. Monitoring has been done by M/s CMPDIL. The parameters were found within limit. **However, Project proponent should submit the Effluent water monitoring data of workshop effluent.**
(ii)	The monitoring data shall be uploaded on the company's website and displayed at the project site at a suitable location. The circular No.J-20012/1/2006-IA.11 (M) dated 27th May, 2009 issued by Ministry of Environment, Forest and Climate Change shall also be referred in this regard for its compliance.	**Being complied but further action needed.** Monitoring data has been uploaded on the company's website along with six monthly compliance reports. **Environmental parameters were not displayed at suitable locations locations.**
(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 piczometers 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.	**Being complied**. Project authorities have mentioned in their six monthly compliance report that "Monitoring report of Piezometer for winter session (Jan), Pre-Monsoon & Monsoon session has been sent to the CGWB Patna vide ref no. PO/Amrapali OC/2019-20/2158 dated 16.01.2020 & vide ref no. PO/Amrapali OC/2020-21/740 Dated:-29-06-2020 & vide ref no. PO/Amrapali OC/2020-21/1378 dated10.09.2020 respectively". One Piezometer was installed in the project (see photo 02) and it was connected to Digital water level recorder (DWLR) (see photo 01). The water level was showing at 7.3 m BGL in DWLR at the time of inspection.Piezometer monitoring data of June and August has been submitted. The water level was 48.62 and 5.3 m BGL in June and August respectively. In addition to above, well inventory and water level data of Amrapali OCP has been submitted by Project Proponent. The location of the well were in Honhe, Rahem, Shivpur, Shisai, Garilong etc. Project Proponent has submitted drinking water quality data (of borewell water) of two quarter endings June and September 2020. Monitoring has been done by M/s CMPDIL. **The level of fluoride was found more than permissible limit on December quarter ending data.** PP has submitted pre and post monsoon water level data of 2016, 2017, 2018 and 2020 and pre monsoon data of 2019. Water level ranges from 1.50 m BGL to 11.50 m BGL.
(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.	**Being Complied**. Water quality monitoring data upstream and downstream of Honhe Nallah of two quarter June 2020 and September 2020 has been submitted by Project Proponent. Monitoring has been done by M/s CMPDIL. Upstream monitoring data of Barki river, Chundru river and monitoring data of after Chundru river & Barki river confluence point, Open Well Ursu Village,

		Hand Pump Ursu Village has been submitted by PP. Monitoring has been done by M/s CMPDIL. However, the date of monitoring is not mentioned in the submitted monitoring data.
(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.	**Partially complied.** Project authorities have mentioned in their six monthly compliance report that "No ground water is being utilized for mining operations. Several rainwater harvesting measures has been undertaken for Amrapali OCP. Work has been awarded & completed for installation & Construction of rainwater harvesting system at PO office and Executive Hostel of Amrapali Project & LOA issued vide ref no:-GM(M-A)/SO(Civil)/Dakra/LOA /2019-20/17 dated:-05.03.2020". **Groundwater was withdrawn for water utilization for water sprinkling, green belt development, etc at the Shivpur railway siding area. However project authorities did not submit any permission/approvals from competent authority (CGWA, etc.) for such Groundwater withdrawal.** Roof top rainwater harvesting was observed in PO office and adjacent buildings there (see photos 63 & 64).
(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	**Partially complied, Action being taken for compliance but still partially complied.** Some plantations was showed by Project authorities near Dhudhmatia nala and also adjacent to it at few places (see photos 05). **Overburden material was observed in the slopes facing Dhudhmatia nala at many places (see photos 06 & 12). It was instructed to develop grassing and vegetation urgently on the slopes facing Dhudhmatia nala. Catch drains were made adjacent to the coal dump in such a way that there was coal transportation road between coal dump and catch drains (see photo 07). Depth and width of catch drains near coal dump was not sufficient. Since there were no siltation ponds attached with those catch drains there were chances that coal dust water would flow to Dhudhmatia nala adjacent to those drains. Also there were open places between drains (see photo 08) for vehicle movement and coal dust would flow from there to Dhudhmatia nala. It was instructed to project authorities to make full proof arrangement, Catch drains of appropriate depth and width, siltation ponds etc. to ensure that no coal dust flows into the Dhudhmatia nala. Catch drain and siltation pond was being constructed on one side of one of the coal**

		dump on east side of mine pit (see photo 14). It was instructed to increase the depth of drains there and build siltation ponds also. At least four coal dumps/coal stockpile were observed in the project (see photos 7, 14, 15, 23, 61, 62). Project authorities informed that the coal dump on the east side of mine pit would be discontinued very soon and no more coal would be stocked there. For the other coal stockpiles project authorities informed that due to weighbridge coal stocks accumulates and look like coal stockpile. It was instructed to construct catch drains and siltation ponds around these coal stocks/dumps also. Project authorities also showed catch drains around coal dumps on one of the weigh bridge (see photo 24). There was water in the sump of Amrapali mine (see photo 16). **On the slopes from coal weighbridge area drains were constructed (see photo 19) and connected to a newly constructed siltation pond (see photo 20). This was being done for preventing coal dust flow to downside in river Barki. However civil work was yet to complete there. Some gabbions may be required there for complete control of coal dust/silt flow.** Garland drain and fencing was observed in the east side of the mine pit (see photos 4 & 13). **Bingalat OB dump: Catch drains were observed on some portions of Bingalat O/B dump (see photos 25 & 26). However on some portions catch drains were not constructed (see photos 27 & 28). Siltation ponds were not constructed along with catch drains in the Bingalat O/B dump facing Bingalat village and Dhudhumatia nala. There were portions between Bingalat O/B dump and Dhudhmatia nala where catch drains siltation ponds and toe wall was not constructed (see photos 26 & 27). and it was instructed to construct those urgently/immediately.** **Honhe OB dump: Catch drains and siltation ponds were observed around Honhe O/B dump (see photos 66 & 68).** Gaps between toe walls around Honhe O/B dump has been filled (see photo 32).**Retaining wall at the toe of the dump was observed on most part of the Honhe O/B dump (see photos 67 & 32). Around Bingalat O/B dump, retaining wall at the toe of the dump was observed on many portions except a few portions especially along the side facing Dhudhmatia nala (see photo 26 & 27). Catch drains and siltation pond adjacent to**

		the Shivpur railway siding had been silted/filled with coal dust (see photo 52). Also some coal dust was observed beyond the siltation pond there which means there was leakage of coal dust into the surroundings (see photo 53). Catch drain on the east side of the top soil dump was constructed (see photo 69). **Toe wall was observed between top soil dump and Honhe O/B dump. However there was no Catch drains/ toe wall between top soil dump and O/B dump in the south side (see photo 70).**
(vii)	Adequate groundwater recharge measures shall be taken up for augmentation of groundwater. The project authorities shall meet water requirement of nearby village(s) after due treatment conforming to the specific requirement (standards).	**Being complied.** Project authorities have mentioned in their six monthly compliance report that "01 no of Pond has been constructed at Honhe. 01 no of pond has been constructed at Birhortola (Koyed). Construction of 1 No of pond at Ursu more is completed." There was water in the sump of Amrapali mine (see photo 16). Check dam was built on Dhudhmatia nala (see photo 18). Garland drain and fencing was observed in the east side of the mine pit (see photos 4 & 13). Roof top rainwater harvesting was observed in PO office and adjacent buildings there (see photos 63 & 64). Project authorities showed a pond near Honhe village (see photo 65) and informed that the pond was constructed by project for rainwater harvesting. RO water plant was observed for Amrapali project (see photo 21). Project authorities informed that local villagers were allowed to take water freely from RO water plant.
(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.	**Partially complied.** Project authorities have mentioned in their six monthly compliance report that "Provision of ETP has been made in the workshop. Work awarded to NBCC for Construction of Workshop along with ETP for the expansion project vide No. NBCC/ED(CPG)/ 2020/500 Dated:13.11.2020". **Oil and grease trap was observed in the project. However, it appeared that it was not utiised for washing of HEMM/trucks there. The oil and grease trap was too small for such a large project where many HEMM and trucks were operational (see photos 58). Also discharge from oil and grease trap was released from two sides into a pit that was very close to Dhudhmatia nala (see photos 57& 59). There was no mechanism for water recirculation after cleaning (after elimination of oil & grease). Project authorities did not explain satisfactorily where they store the oil & grease taken out of the trap and how**

		much quantity of oil and grease was collected for last couple of months. Effluent water monitoring data of Mine water of two quarter June 2020 and September 2020 has been submitted by Project Proponent. Monitoring has been done by M/s CMPDIL. The parameters were found within limit. **However, Project proponent should submit the Effluent water monitoring data of workshop.**
(ix)	The water pumped out from the mine, after siltation, shall be utilized for industrial purpose viz. watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.	**Being complied.** Project authorities have mentioned in their six monthly compliance report that "The water pumped out from mine is being utilized for industrial purpose viz. watering the mine area, roads, green belt development etc. The drains are being silted once in a year Pre-monsoon for proper channeling of water into sedimentation ponds".
(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 watercourses 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.	**Being complied.** Project authorities have mentioned in their six monthly compliance report that "The surface drainage map, water table contour map & watershed map of Amrpali OCP is enclosed". The diversion of nallah is proposed as per the approved Mining Plan &EIA/EMP report. Due approval before diversion of nallah shall be taken and it will be submitted to MoEF&CC. Barki River marks the eastern boundary of the property with a safe distance of about 100 mtrs". No embankment was observed in the Mine project. Project authorities informed that whenever need arises embankment shall be made to prevent any danger against surface water into mine.
(xi)	The project proponent shall take all precautionary measures to ensure riverine/riparian ecosystem in and around the coalmine 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.	**Partially complied.** Project authorities have mentioned in their six monthly compliance report that "The surface drainage map, water table contour map & watershed map of Amrapali OCP is enclosed".Surface drainage map, water table contour map & watershed map has been submitted by Project Proponent(PP).**A riverine/riparian ecosystem conservation and management plan has not been submitted by PP.** **Overburden material was observed in the slopes facing Dhudhmatia nala at many places (see photos 06 & 12). It was instructed to develop grassing and vegetation urgently on the slopes facing Dhudhmatia nala. Grassing and vegetation have been developed at many places on Bingalat O/B dump (see photos 06 &**

<table>
<tr><td></td><td></td><td>30). However there are still many places on the Bingalat O/B dump where grassing and vegetation has not been developed (see photos 26, 27, 28 & 30). Grassing and vegetation should be developed urgently on the sides/slopes of O/B dump facing Dhudhmatia nala (see photos 26 & 27) and also on the remaining. Catch drains were made adjacent to the coal dump in such a way that there was coal transportation road between coal dump and catch drains (see photo 07). Depth and width of catch drains near coal dump was not sufficient. Since there were no siltation ponds attached with those catch drains there were chances that coal dust water would flow to Dhudhmatia nala adjacent to those drains. Also there were open places between drains (see photo 08) for vehicle movement and coal dust would flow from there to Dhudhmatia nala. It was instructed to project authorities to make full proof arrangement, Catch drains of appropriate depth and width, siltation ponds etc. to ensure that no coal dust flows into the Dhudhmatia nala. On the slopes from coal weighbridge area drains were constructed (see photo 19) and connected to a newly constructed siltation pond (see photo 20). This was being done for preventing coal dust flow to downside in river Barki. However civil work has not been completed yet. Some gabbions may be required there for complete control of coal dust/silt flow.</td></tr>
<tr><td colspan="3">(d) Noise and Vibration monitoring and prevention</td></tr>
<tr><td>(i)</td><td>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 equipment (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.</td><td>Being complied but further action needed. Noise level monitoring data of two quarter June 2020 and September 2020 has been submitted by Project Proponent. Monitoring has been done by M/s CMPDIL. Noise level data ranges from 40.7 dB(A) to 62.4 dB(A). From the submitted data it is not clear whether the monitoring has been done at night or not.
PP has submitted total number of ear muffs/plugs provided to workers for the year 2016 & 2020:
<table>
<tr><td>Year</td><td>2016</td><td>2020</td></tr>
<tr><td>Ear Muffs/ Plugs</td><td>02</td><td>87</td></tr>
</table>
Total number of Ear plugs/Muffs provided in the year 2017, 2018, 2019 was not provided by PP.</td></tr>
<tr><td>(ii)</td><td>Controlled blasting techniques shall be practiced in order to mitigate ground vibrations, Fly rocks, noise and air blast</td><td>Being complied. Project authorities have mentioned in their six monthly compliance report that “Controlled blasting techniques are adopted.</td></tr>
</table>

	etc., as per the guidelines prescribed by the DGMS.	Blasting is done only in daylight hours. Proper blast design is prepared to control ground vibrations and arrest flyrocks and boulders; Blasting is done by use of NONEL Technology & Electronic detonator for reducing Noise Pollution and Vibration".
(iii)	The noise level survey shall be carried out as per the prescribed guidelines to assess noise exposure of the workmen at vulnerable points in the mine premises, and report in this regard shall be submitted to the Ministry/RO on six-monthly basis.	**Being complied but further action needed.** Noise level monitoring data of two quarter June 2020 and September 2020 has been submitted by Project Proponent. Monitoring has been done by M/s CMPDIL. Noise level data ranges from 40.7 dB(A) to 62.4 dB(A). **From the submitted data it is not clear whether the noise monitoring has been done at night or not.**
(e) Mining Plan		
(i)	Mining shall be carried out under strict adherence to provisions of the Mines Act 1952 and subordinate legislations made thereunder as applicable.	**Being complied.** Project authorities have mentioned in their six monthly compliance report that "Mining is being carried out as per the provisions of Mines Act 1952 and subordinate legislations there under".
(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)	**Being complied but further action needed.** Project authorities have mentioned in their six monthly compliance report that "Mining is being done in abidance to the approved mining plan and under permission of Directorate General Mines Safety (DGMS)". **In the backfilled area in the lower portion vehicles plied for various activities (see photo 17). However it was suggested that proper slope stability studies may be done so that there is no danger from dump failures/slope failures which may lead to risk to men and machinery (see photo 17).** Project proponent has submitted a copy of mining plan & mine closure plan (without plates and drawings) and assured to comply with the provisions of the approved mining plan & Mine Closure Planned the relevant circulars issued by Directorate General Mines Safety (DGMS).
(iii)	Efforts should be made to reduce energy and fuel consumption by conservation, efficiency improvements and use of renewable energy.	**Partially complied. Project proponent did not show any effects/process in the project done for reducing energy and fuel consumption & 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).	**Being complied.** Project authorities have mentioned in their six monthly compliance report that "Digital Survey of entire core zone using Satellite Remote Sensing survey is being carried out once in three years. The last two survey carried out in Year 2015 & Year 2018 is enclosed". Project Proponent has submitted Land Restoration / Reclamation Monitoring satellite

		data of the year 2015 and 2018, prepared by M/s CMPDIL.
(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 topsoil. 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.	**Assured to comply.** Project authorities have mentioned in their six monthly compliance report that "The final mine void depth shall be as per the approved mining plan. The remaining arca shall be backfilled and bio-reclaimed as per the approved mine closure plan. A total amount of Rs. 2744.08 Lakhs has been deposited till 01.04.2020 out of the total mine closure corpus of Rs. 5578.83 Lakhs. A separate account has been opened in Bank of Baroda Vide account no: 00170100019666. The proposed post mining land use & breakup of activity-wise mine closure cost is enclosed". Backfilling in the mine in already coal exhausted areas was being done (see photos 17 & 37).
(iii)	The entire excavated area, backfilling, external OS 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-à-vis the post mining land use pattern shall be submitted to the MOEFCC/RO.	**Assured to comply but further action needed.** Project proponent assured "that the land use of the project shall be in conformity with land use pattern as submitted in the approved mining plan & EIA/EMP report.The progressive compliance status vis-a-vis the post mining land use shall be submitted". **PP should submit progressive compliance status vis-à-vis the post mining land use pattern as per this EC condition.**
(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.	**Assured to comply.** Project authorities have mentioned in their six monthly compliance report that "At present there is no fly ash dumping in the project. However if the fly ash shall be used for dumping the 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 shall be followed". Backfilling was being done in mine but no use of fly ash was observed.
(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 topsoil 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.	**Partially complied.** Project authorities have mentioned in their six monthly compliance report that "The time schedule specified in the mine closure plan shall be adhered to. The remaining area shall be backfilled and bio-reclaimed as per the approved mine closure plan. A total amount of Rs. 2,744.08 Lakhs has been deposited till 01.04.2020 out of the total mine closure corpus of Rs. 5578.83 Lakhs. A separate account has been opened in Bank of Baroda Vide account no: 00170100019666. The proposed post mining land use & breakup of activity-wise mine closure cost is enclosed". Top soil dump was observed in the project. **Grassing and vegetation have been**

	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 Chang/ Regional Office.	**developed at many places on Bingalat O/B dump (see photos 06 & 30). However there are still many places on the Bingalat O/B dump where grassing and vegetation has not been developed (see photos 26, 27, 28 & 30). Grassing and vegetation should be developed urgently on the sides/slopes of O/B dump facing Dhudhmatia nala (see photos 26 & 27) and also on those portions which is not under active O/B dumping.** Plantations were observed on Bingalat O/B dump (see photos 31 & 33). Some manpower /agency were involved/observed watering the plants over Bingalat O/b dump (see photo 29). Project authorities showed plantations on slope of Bingalat O/B dump that was done by state forest department (see photo 34).
(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.	**Being complied. Reportedly complied as per PP.** Project Proponent reported in their Six monthly compliance report that "At present, there is no grazing land is involved in the project area of 619.87 Ha".
(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.	**Compliance status same as in specific condition xxiv.**
(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.	**Partially complied. Greenbelt consisting of 3-tier plantation of width not less than 7.5 m has not been developed. Some Green belt has been developed along the major approach/coal transport roads. However, there remains many areas along the above mentioned roads where green belt has yet to be developed.**
(h) Public hearing and Human health issues		
(i)	Adequate illumination shall be ensured in all mine locations (as per DGMS standards) and monitored weekly. The report on the same shall be submitted to this ministry & it's RO on six-monthly basis.	**Partially complied.** Project Proponent reported in their Six monthly compliance report that "Adequate illumination is being ensured at all mine locations (as per DGMS standards) and monitored weekly. The copy of the NIT floated for providing Lighting arrangement at Transport road and along outside periphery of substation at

<table>
<tr><td></td><td></td><td>Amrapali OCP is enclosed".
Project proponent has not submitted weekly illumination monitoring data.</td></tr>
<tr><td>(ii)</td><td>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.</td><td>Compliance same as specific condition vii.</td></tr>
<tr><td>(iii)</td><td>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.</td><td>Being complied but further action needed. Project Proponent has submitted total number of PPEs provided to workers. Year wise details of protective respiratory devices provided to workers given below
<table>
<tr><td></td><td>2016</td><td>2017</td><td>2018</td><td>2019</td><td>2020</td></tr>
<tr><td>Dust Mask</td><td>Nil</td><td>Nil</td><td>254</td><td>41</td><td>1252</td></tr>
</table>
Project proponent should explain why only 41 dust masks were issued in the year 2019 and Nil dust masks were issued in the year 2016 and 2017.
Project proponent has also submit that VTC has been provided to 245 contractual workers in the year 2020. No details have been provided regarding training provided in the year 2018 and 2019.</td></tr>
<tr><td>(iv)</td><td>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.</td><td>Being complied but further action needed. Project Proponent reported in their Six monthly compliance report that "All issues raised during Public Hearing have been complied. The public hearing proceedings & action taken report is enclosed. R & R plan has been prepared as per the details submitted in EIA/EMP report and is being followed to provide all benefits as per the CIL approved R & R Policy. Land compensation for 38 acres has been paid till date".In the R&R proforma project proponent submitted that total families affected is 452 and families yet to be rehabilitated is 452; total employment to be provided is 297 and employment given so far is 85. Project proponent has submitted a copy of Public hearing proceedings and action taken report. Project authorities should take concrete steps for controlling air and water pollution as committed in Public hearing.</td></tr>
</table>

(v)	The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-1A.11 (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.	**Compliance status same as specific condition xxii**
(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.	**Partially complied.** Project authorities have mentioned in their Six monthly compliance report that "A fund provision of Rs. 4.29 Crore has been allocated for Corporate Environment Responsibility." **However activity wise expenditure (on items related to CER) has not been submitted to this office.**
(ii)	The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/ deviation/ violation of the environmental/forest /wildlife norms/conditions. The company shall have defined system of reporting infringements/ deviation/ violation of the environmental/forest/wildlife norms/ conditions and/or shareholders/stake holders.	**Partially complied.** Project proponent has submitted a copy of environmental policy approved by the Board of Directors. **However, in the environmental policy no details have been provided on 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. Project authorities should also submit documents to prove that there exists 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.	**Being complied.** Project Proponent reported in their Six monthly compliance report that "Separate Environmental cell both, at project & company head quarter level has been setup". Project proponent has submitted a copy of letter no. CCL/HOD(E&F)/2019/348 dated 26.07.2019, in which committee has been constituted at area level.
(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	**Partially complied. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company (duly approved by competent authority) has not been submitted by project proponent. Expenditure data on environmental protection measures and year wise progress of implementation of action plan should be submitted to IRO, Ranchi.**

	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.	**Assured to comply**. Project Proponent reported in their Six monthly compliance report that "As directed, a third party assessment shall be carried out for Amrapali OCP undertaken once in three years through experts agency recognized by MoEF&CC. Self environmental audit shall also be conducted annually and report will be submitted to MoEF&CC".
(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.	**Complied but timeline not followed.** Project Proponent has submitted copies of newspaper cutting. **The advertisement has been made in "Prabhat Khabar" and in "the pioneer" on 25.07.2020.** The EC letter has been uploaded on the website of Project proponent.
(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.	**Being complied but further action needed.** Project Proponent has submitted a copy of letter no. PO/Amrapali/Env/2019-20/2735A dated 25/03/2020 addressed to Mukhiya of Koed, Raham, Tandwa, Kasiadih & Gardliong regarding submission of EC letter.Project Proponent vide their email dated 07/01/2021 submitted a copy of receipt of EC marked to Mukhiya, Gram Panchayat Koyed. **Date of receipt of the EC letter by Mukhiya is not mentioned.**
(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.	**Being complied.** Six monthly compliance reports have been submitted to this office and it is uploaded on website of the project proponent.
(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.	**Being complied but further action needed.** Project authorities have mentioned in their six monthly compliance report that "CCL is monitoring the criteria pollutants level namely; PM10, PM2.5, SO2, NOx every fortnight. The monitoring data is being displayed at CCL website with six monthly compliance reports & Environment Statement in Form-V". Project Proponent has submitted monitoring data of Ambient air, Noisc, Surface water, Drinking water of two quarters June and September 2020 and the same has been uploaded on website. **Display of criteria pollutants or critical sectoral parameters not displayed at a convenient location for disclosure to public.**

(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.	**Being complied.** Six monthly compliance reports have been submitted to this office and it is uploaded on website of the project proponent.
(vi)	The project proponent shall follow the mitigation measures provided in this Ministry's OM No.Z-11013/5712014-IA.11 (M) dated 29th October, 2014, titled 'Impact of mining activities on habitations-issues related to the mining projects wherein habitations and villages are the part of mine lease areas or habitations and villages are surrounded by the mine lease area'.	**Compliance same as condition (h) (v).**
(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.	**Being complied**. Environmental statement has been submitted to this office and it is uploaded on website of the project proponent.
(viii)	The project authorities shall inform to the Regional Office of the MOEFCC regarding commencement of mining operations.	**Complied.** Project authorities have mentioned in their six monthly compliance report that "Amrapali OCP is operational from 07.02.2014. The progressive reports are being submitted to MoEF&CC with six monthly compliance periodically".
(ix)	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.	**Being complied.** Project authorities have mentioned in their six monthly compliance report that "Project proponent is strictly adhering to the stipulations made by the Jharkhand State Pollution Control Board."
(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.	**Agreed to comply.** Project authorities have mentioned in their six monthly compliance report that "Project proponent is taking action as per the commitments and recommendations made in the EIA/EMP report/public hearing and submission made to MoEF&CC. The updated status shall be submitted to MoEF&CC every six month with compliance report".
(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.	Project authorities have mentioned in their six monthly compliance report that they **"Agreed to comply"**.
(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.	Project authorities have mentioned in their six monthly compliance report that they **"Agreed to comply"**.
(xiii)	The Ministry may revoke or suspend the	Project authorities have mentioned in their six

	clearance, if implementation of any of the above conditions is not satisfactory.	monthly compliance report that they "**Agreed to comply**".
(xiv)	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Project authorities have mentioned in their six monthly compliance report that they "**Agreed to comply**".
(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.	**Being complied**.
(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.	Project authorities have mentioned in their six monthly compliance report that they "**Agreed to comply**".

Photo01:Photo of Digital water level recorder(DWLR) connected with Piezometer in Amrapali project.

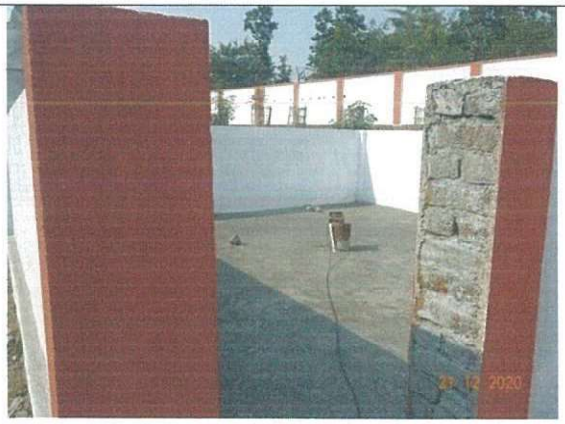

Photo02:Photo of borehole for Piezometer .

Photo03:Photo of a first aid station in the project

Photo 04: Photo of garland drain and fencing in the east side of the mine pit

Photo 05: Photo of some green belt developed in the project.

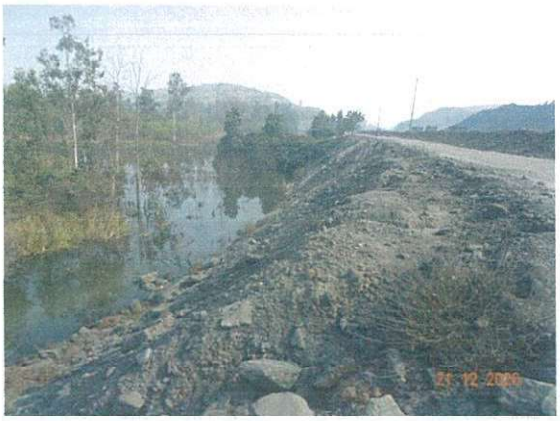

Photo06:Photo of Dhudhmatia nala and slope made of OB material.Coal dump can be seen in right side

Photo 07: Photo of coal dump and catch drain with a transportation road between them

Photo08:Photo of catch drain without any siltation pond and no other provisions for preventing coal dump water to flow into Dhudhmatia nala.

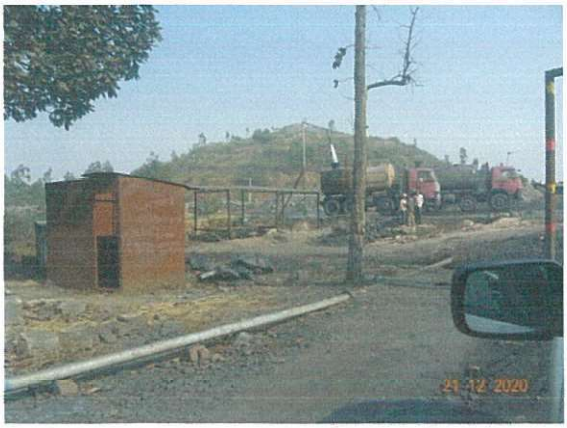

Photo 09: Photo of water being withdrawn from Dhudhmatia nala into water tanker.

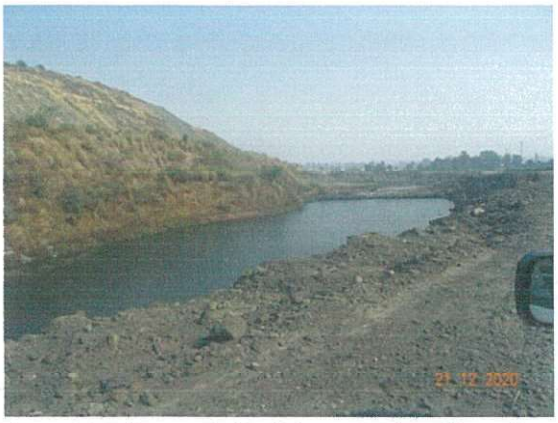

Photo 10: Photo of checkdam at Dhuadhmatia nala. Adjacent to it is Bingalat OB dump.

Photo 11: Photo of some plantations on the sides haul roads in project.

Photo 12: Photo of exposed OB material on the of slopes of haul road adjacent to Dhudhmatia nala.

Photo 13: Photo of pucca wall and drain on the east side of mine pit

Photo 14: Photo of catch drain and siltation pond on one side of one of the coal dumps

Photo 15: Photo of the coal dump in the east side of mine pit

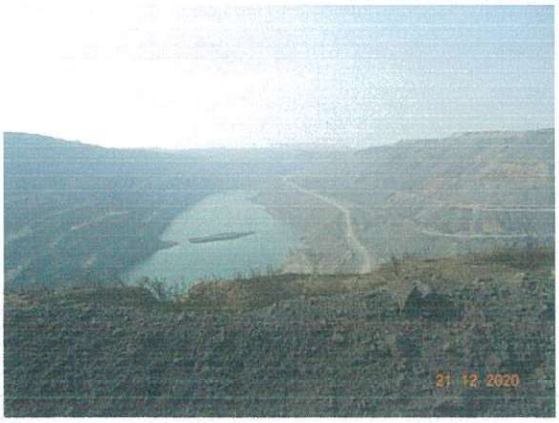

Photo 16: Photo of water in the sump of Amrapali mine project.

Photo 17: Photo of internal dump. Some machines were observed plying in lower portions

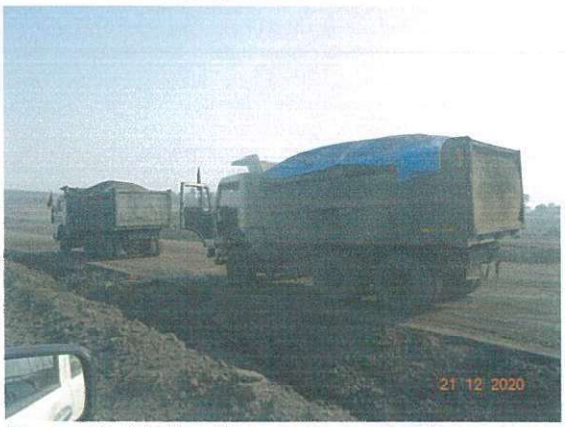

Photo 18: Photo of tarpaulene covering on coal transportation trucks.

Photo 19: Photo of drains connected from coal weighbridge area to siltation pond

Photo20:Photo of siltation pond to prevent coal dust flowing towards low lying areas and towards Barki river

Photo 21: Photo of RO water plant in the project

Photo 22: Photo of operational fixed water sprinklers near one of the coal weighbridge area.

Photo 23: Photo of non operational fixed water sprinklers near the coal weighbridge area.

Photo 24: Photo of small catch drain around the coal weighbridge area.

Photo 25: Photo of catch drain in one side (east) of Bingalat OB dump

Photo 26: Photo of Dhudhmatia nala adjacent to OB material of Bingalat OB dump.

Photo 27: Photo of Dhudhmatia nala adjacent to Bingalat OB dump without catch drain,retaining wall.

Photo 28:Photo of Bingalat OB dump with no catch drain,retaining wall(east side).

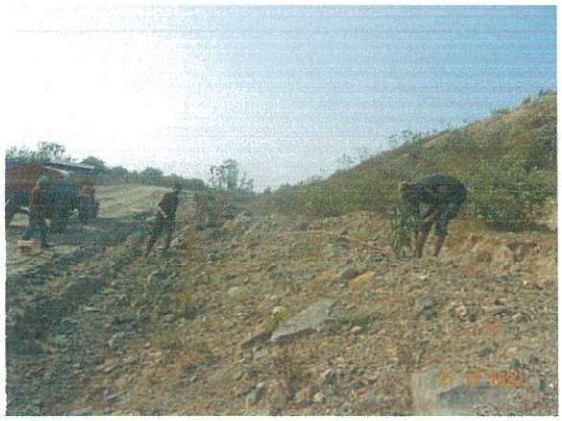

Photo 29: Photo of watering in new plants on Bingalat OB dump

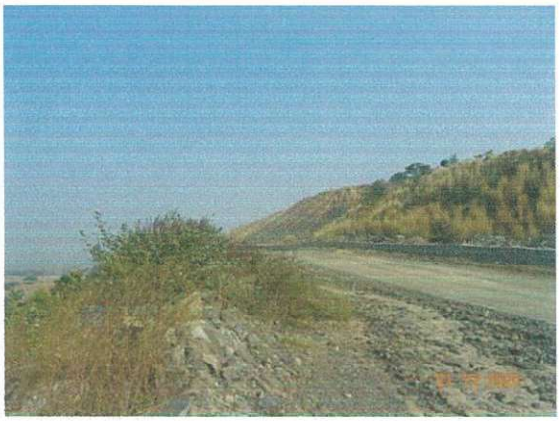

Photo 30: Photo of retaining wall and grassing and vegetation on Bingalat OB dump(west side)

Photo31:Photo of new plantations on Bingalat OB dump

Photo 32: Photo of filled gaps in retaining wall around Honhe OB dump

Photo33:Photo of plantations on Bingalat OB dump

Photo 34: Photo of plantation of almost same species on the slopes on Bingalat OB dump

Photo 35: Photo of surface miner operational on coal benches in mine

Photo 36: Photo of spontaneous heating in OB dump of project.

Photo 37: Photo of internal dumping being carried out in the Amrapali project

Photo 38: Photo of water tanker used for water sprinkling on coal benches.

Photo 39& 40: Photo of coal dust emissions during loading on coal benches of mine.

Photo 41: Photo of wet drilling arrangements in one of the drill machines operational in mine.

Photo42:Photo of road between project and Shivpur railway siding with coal debris pushed on both sides.

Photo 43:Photo of grader/scraper used for leveling, cleaning of road between project and railway siding

Photo44:Photo of pond adjacent to coal transport--tation road with no safeguards/drains in between

Photo45:Photo of road between project and Shivpur railway siding with coal debris pushed on both sides.

Photo 46: Photo of nala in between project and Shivpur siding with coal dust on the bridge slopes

Photo 47& 48: Photo of nala in between project and Shivpur siding with coal dust/debris on its bridge slopes

Photo49:Photo of platform of Shivpur railway siding Wind screen can also be seen there.

Photo 50: Photo of wind screen and plantations on one side at the Shivpur railway siding.

Photo 51: Photo of railway siding area

Photo 52: Photo of silted drains and siltation pond in one side of the Shivpur siding.

Photo 53: Photo of coal dust flowing beyond the siltation pond at Shivpur siding

Photo 54:Photo of road between project and Shivpur railway siding with coal debris pushed on both sides.

Photo 55: Photo of road between project and Shivpur railway siding with coal debris pushed on both sides.

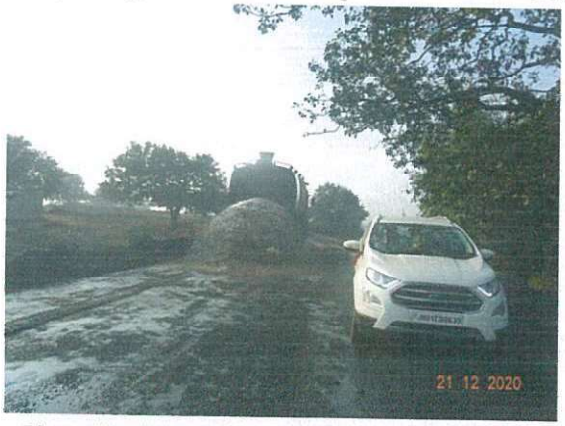

Photo56:Photo of water tanker sprinkling water on the coal transporation road

Photo 57: Photo of water discharge towards nala from washing platform in workshop area

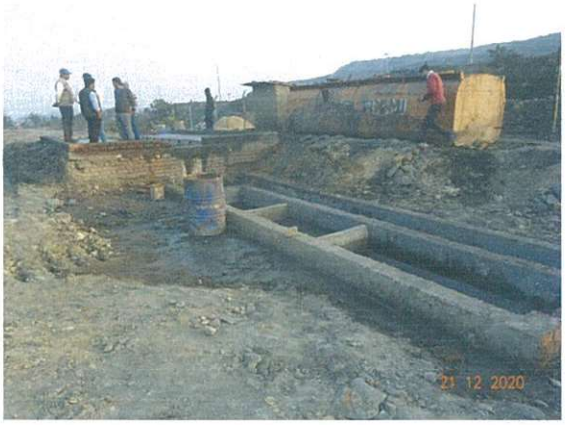

Photo 58: Photo of oil and grease trap in Amrapali project

Photo 59: Photo of water storage adjacent to Dhudhmatia nala connected to oil & grease trap.

Photo 60: Photo of used oil drum kept without shed. Some oil can be seen spilled on ground

Photo 61& 62: Photo of one of the coal dumps/weighbridges area without any catch drain/siltation pond around it.

Photo 63: Photo of PO office of Amrapali project.

Photo 64: Photo of rooftop rainwater harvesting in PO office and adjacent building.

Photo 65: Photo of a pond near Honhe village

Photo 66: Photo of siltation pond connected to catch drain around Honhe OB dump

Photo 67: Photo of retaining wall around Honhe OB dump.Grassing on OB dump can also be seen

Photo 68: Photo of catch drain around Honhe OB dump

Photo 69: Photo of catch drain in east side of the top soil dump

Photo 70: Photo of retaining wall between Honhe OB dump and top soil dump.

Summary of the report

Project was monitored by Integrated Regional Office, Ranchi on 21.12.2020. Project proponent has informed that a proposal for expansion of the project is under consideration at MOEF&CC and requested for a certified compliance report from IRO Ranchi. The salient observations of the monitoring report are as follows:

Specific Conditions:

Following conditions are partially complied:

Condition vi: Some of fixed water sprinklers in line (at the weighbridge area) were not operational. Project authorities informed that due to pipe breakage some sprinklers were non operational. It was instructed to make arrangements so that water sprinklers remain operational regularly and it should be rectified as soon as some problems are encountered there. Fixed water sprinklers are also required in main coal dump area, haul roads adjacent to the coal dumps/weighbridges, haul road from mine to coal dumps/stocks other haul roads on which HEMM/trucks move frequently.

Grader/scraper was used for levelling, cleaning of road between Amrapali Mine project and Shivpur Railway siding. But coal dust/debris has been pushed on both sides of roads.Water tanker was observed sprinkling water on the coal transportation road to Amrapali siding but it did not seem sufficient. More water tankers should be deployed on the route for water sprinkling. Road sweeping machines can also be deployed. Steps should be taken to ensure that there is no coal spillage on the road because there were village dwellings/habitations adjacent to that road who would be adversely affected by the coal dust emissions there. Project Proponent has submitted running hours of 3 departmental (3rd tanker operational since 11.08.2020) and 13 contractual water tankers. Average running hours of departmental water tankers were approximately 4-5 hr/day which is less than satisfactory. The running hours of contractual water tankers were approximately 4 hr/day, which is less than satisfactory. Project Proponent should ensure 3-4hr/ shift of water sprinkling per tanker especially in dry seasons.

Condition ix: Some green belt development could be seen in the project. However thick green belt of adequate width at the final boundary in the downward direction has not been developed yet by project authorities to mitigate/check the dust pollution.

Condition x: Water was withdrawn from Dhudhmatia nala for water sprinkling in the project by water tankers. However, project authorities did not submit surface water / river water withdrawal permission from concerned department.

Condition xi: Groundwater was withdrawn for water utilization for water sprinkling, green belt development, etc. at the Shivpur railway siding area. However, project authorities did not submit any permission/approvals from competent authority (CGWA,etc.) for such Groundwater withdrawal there.

Condition xiv: Grassing and vegetation have been developed at many places on Bingalat O/B dump. However there are still many places on the Bingalat O/B dump where grassing and vegetation has not been developed. Grassing and vegetation should be developed urgently on the sides/slopes of O/B dump facing Dhudhmatia nala and on remaining portions also.

Condition xv: Efforts made for compliance. Work in progress. Project proponent has submitted Action taken report dated 16.12.20. Efforts have been made for compliance of many EC (old) conditions. However, there still remains some partially complied conditions as given below:

- There has been some improvement in grassing and vegetation on O/B dumps but still there remains portion where grassing and vegetation have not been developed. There are two external dump in the project, Honhe O/B dump and Binglat O/B dump. Partially complied, work in progress (Specific condition iii of earlier EC).
- Catch drain and siltation ponds around Honhe dump has been made. However, catch drains and siltation pond (in the remaining portions) around Binglat O/B dump (especially adjacent to Dhudhmatia nala) has to be made. Similarly Catch drains & siltation ponds around all coal dumps/ heaps /stocks needs to be constructed-Partially complied. (Specific condition iv of earlier EC).
- Retaining wall made around Honhe O/B dump. Retaining wall around Binglat O/B dump especially facing Dhudhmatia nala needs to be constructed- Being complied but further action needed. (Specific condition v of earlier EC).
- There have been improvements in green belt development. However,Avenue plantation on both side of haul road and green belt around bunker and surrounding area for coal stock has not been developed as per EIA/EMP report: Partially complied, efforts made for compliance but work in progress(Specific condition vi of earlier EC).
- Mitigative measures for preventing pollution in Dudhmatia nala (that flows in river Barki) needs to be taken- Partially complied, action taken for compliance. (Specific condition xiii of earlier EC).
- Project proponent has submitted health check up report of around 5 K.M radius of Magadh Amrapali area for five years, from 2013-2018. Comparative analysis of the same has not been submitted by PP.
- Working hours of water tankers remain less than satisfactory. Fixed water should be provided for main haul roads dust suppression. Being complied but further action needed. (General condition vi of earlier EC).

Condition xvi: Action being taken for compliance but more efforts needed for compliance of this EC condition till March 2022. More plantations needs to be done along the villages and transportation route for compliance of this EC condition.

Condition xvii: Activity wise expenditure(on items related to CER) i.e. details of actual expenditure incurred on CER has not been submitted to this office.

Condition xxvii: As per the plan submitted, Honhe External OB dump is within 100m distance from Bahut Chuha nala. Catch drains and siltation ponds have been made around Honhe OB dump to prevent any silt flowing in Bahut Chuha nala.

Condition xxviii: Though efforts have been made for compliance of old EC conditions still there remains some conditions that are still partially complied. See specific condition xv for descriptive compliance status.

Following conditions are being complied but further action needed:

Condition ii & (a) iv: PP has also reported that copy of application made for CTE of 14.4 MTPA vide no: 7811934 dated 11.03.2020 has been submitted to JSPCB. It implies project proponent has neither received CTE for 14.4 MTPA (Peak) production nor they have valid CTO for 14.4 MTPA production till date.

Condition iii: Tarpaulin covering was done on the coal transportation trucks. However, there was coal spillage on coal transportation routes. It may be due to improper covering, loading of coal till the top of truck, etc. It was instructed that a free board of minimum 5 cm in all loaded vehicles/trucks along with proper covering with impervious material to prevent escape of times should be followed for all coal transportation trucks.

Condition vii, xii, xxi & (h) ii: PME of contractual workers should also be submitted.

Condition viii: Project proponent should submit skill development activities undertaken exclusively at Amrapali OCP.

Condition xviii: Project Proponent (PP) has submitted a copy of blasting permission obtained from DGMS (no.Ranchi area/825-27). Permission obtained was valid upto three years from the date of issue of letter but in the submitted copy date of issue of letter is not legible.

Condition xxii, (h) v, (j) vi : Some of the stipulations of the OM that are relevant to the project are yet to be complied completely: Inadequate provision for prevention of coal dust and OB silt material flow into Dhudhmatia nala, Absence of permanent water sprinklers in main haulage road in mine, etc.

Condition xxiii: From the submitted data it is not clear whether the noise monitoring has been done at night or not.

Condition xxiv & (g) i: Project Proponent has submitted a copy of letter no. HOD(E&F)/20/1130 dated 18/02/2020 submitted to DFO, Chatra (South). In the submitted letter it was mentioned that application for EC has been made for 16.8 MTPA. However, in the preliminary conservation plan prepared by Institute of Forest Productivity, Ranchi targeted production of Amrapali OCP has been mentioned as 12.0 MTY. Project Proponent should clarify the above anomaly.

(a) Statutory Compliance

Following conditions are partially complied:

Condition v: Compliance same as specific condition xi.

Condition vi: Used oil drums were kept haphazardly without any cover/shade i.e in open space with some oil spilled on ground.

Following conditions are being complied but further action needed:

Condition iii: Project proponent(PP) should follow up and make efforts to get the site conservation plan approved by competent authority. Remaining compliance same as specific condition xxiv.

(b) Air quality monitoring and preservation

Following conditions are partially complied:

Condition iii: Tarpaulene covering was done on the coal transportation truck. However there was coal spillage on coal transportation routes. It may be due to improper covering, loading of coal till the top of truck, etc. It was instructed that a free board of minimum 5 cm in all loaded vehicles/trucks along with proper covering with impervious material to prevent escape of times should be followed for all coal transportation trucks. Some of fixed water sprinklers in line were not operational. Project authorities informed that due to pipe breakage some sprinklers were non operational. It was instructed to make arrangements so that water sprinklers remain operational regularly and it should be rectified as soon as some problems are encountered there. Fixed water sprinklers are also required in main coal dump area, haul roads adjacent to the coal dumps/weighbridges, haul road from mine to coal dumps/stocks other haul roads on which HEMM/trucks more frequently.

Grader/scraper was used for leveling, cleaning of road between Amrapali Mine project and Shivpur Railway siding. But coal dust/debris has been pushed on both sides of roads. Water tankers was observed sprinkling water on the coal transportation road to Amrapali siding but it did not seem sufficient. More water tankers should be deployed on the route for water sprinkling. Road sweeping machines can also be deployed. Steps should be taken to ensure that there is no coal spillage on the road because there were village dwellings/habitations adjacent to that road who would be adversely affected by the coal dust emissions there.

Surface miner was observed in the mine that was utilised for coal breakage/excavation. However, coal dust emissions was observed during the operation of surface miner. Also during loading of coal by loaders into trucks there was a lot of coal dust emissions. Even though water tankers were utilized for wetting of coal there was coal dust emissions during coal loading.

Condition vi: Fixed water sprinklers were installed at one of the coal stockpile/weighbridge area but few of those sprinklers wee operational. Other fixed water sprinklers there were not operational. There were no fixed water sprinklers/rain gun, etc. at main coal dump, other weighbridges/coal stocks.

Following conditions are being complied but further action needed:

Condition i & ii: Heavy metals monitoring data of Hg, Cd, Cr has not been submitted. Spontaneous combustion was observed at one place in O/B dump. It was instructed to eliminate spontaneous combustion in the mine project area.

Condition iv: It is mentioned in the addendum EIA/EMP of Amrapali OCP(page no 11) that coal is being transported by trucks to Shivpur railway siding which is at a distance of 07 km from project boundary. However in the copy/pages of the mining plan submitted by PP there is no mention of coal transportation route nor any drawing/plate attached showing the route.

(c) Water quality monitoring and preservation

Following conditions are partially complied:

Condition i: PP should submit the Effluent water monitoring data of workshop effluent.

Condition v: Compliance same as specific condition xi.

Condition vi: Action being taken for compliance but still partially complied. Overburden material was observed in the slopes facing Dhudhmatia nala at many places . It was instructed to develop grassing and vegetation urgently on the slopes facing Dhudhmatia nala. Catch drains were made adjacent to the coal dump in such a way that there was coal transportation road between coal dump and catch drains . Depth

and width of catch drains near coal dump was not sufficient. Since there were no siltation ponds attached with those catch drains there were chances that coal dust water would flow to Dhudhmatia nala adjacent to those drains. Also, there were open places between drains for vehicle movement and coal dust would flow from there to Dhudhmatia nala. It was instructed to project authorities to make full proof arrangement, Catch drains of appropriate depth and width, siltation ponds etc. to ensure that no coal dust flows into the Dhudhmatia nala. Catch drain and siltation pond was being constructed on one side of one of the coal dump on east side of mine pit . It was instructed to increase the depth of drains there and build siltation ponds also. At least four coal dumps/coal stockpile were observed in the project. Project authorities informed that the coal dump on the east side of mine pit would be discontinued very soon and no more coal would be stocked there. For the other coal stockpiles project authorities informed that due to weighbridge coal stocks accumulates and look like coal stockpile. It was instructed to construct catch drains and siltation ponds around these coal stocks/dumps also. Project authorities also showed catch drains around coal dumps on one of the weigh bridge . On the slopes from coal weighbridge area drains were constructed and connected to a newly constructed siltation pond. This was being done for preventing coal dust flow to downside in river Barki. However civil work was yet to complete there. Some gabbions may be required there for complete control of coal dust/silt flow.

Bingalat OB dump: Catch drains were observed on some portions of Bingalat O/B dump . However on some portions catch drains were not constructed. Siltation ponds were not constructed along with catch drains in the Bingalat O/B dump facing Bingalat village and Dhudhumatia nala. There were portions between Bingalat O/B dump and Dhudhmatia nala where catch drains siltation ponds and toe wall was not constructed and it was instructed to construct those urgently/immediately.

Honhe OB dump: Catch drains and siltation ponds were observed around Honhe O/B dump . Retaining wall at the toe of the dump was observed on most part of the Honhe O/B dump . Around Bingalat O/B dump, retaining wall at the toe of the dump was observed on many portions except a few portions especially along the side facing Dhudhmatia nala . Catch drains and siltation pond adjacent to the Shivpur railway siding had been silted/filled with coal dust. Also some coal dust was observed beyond the siltation pond there which means there was leakage of coal dust into the surroundings . Toe wall was observed between top soil dump and Honhe O/B dump. However there was no Catch drains/ toe wall between top soil dump and O/B dump in the south side.

Condition viii: Oil and grease trap was observed in the project. However, it appeared that it was not utilised for washing of HEMM/trucks there. The oil and grease trap was too small for such a large project where many HEMM and trucks were operational. Also, discharge from oil and grease trap was released from two sides into a pit that was very close to Dhudhmatia nala. There was no mechanism for water recirculation after cleaning (after elimination of oil & grease). Project authorities did not explain satisfactorily where they store the oil & grease taken out of the trap and how much quantity of oil and grease was collected for last couple of months. Project proponent should submit the Effluent water monitoring data of workshop.

Condition xi: A riverine/riparian ecosystem conservation and management plan has not been submitted by PP. Overburden material was observed in the slopes facing Dhudhmatia nala at many places. It was instructed to develop grassing and vegetation urgently on the slopes facing Dhudhmatia nala. Grassing and vegetation have been developed at many places on Bingalat O/B dump. However, there are still many places on the Bingalat O/B dump where grassing and vegetation has not been developed. Grassing and vegetation should be developed urgently on the sides/slopes of O/B dump facing Dhudhmatia nala and also on the remaining portions.

Catch drains were made adjacent to the coal dump in such a way that there was coal transportation road between coal dump and catch drains. Depth and width of catch drains near coal dump was not sufficient. Since there were no siltation ponds attached with those catch drains there were chances that coal dust water would flow to Dhudhmatia nala adjacent to those drains. Also, there were open places between drains for vehicle movement and coal dust would flow from there to Dhudhmatia nala. It was instructed to project authorities to make full proof arrangement, Catch drains of appropriate depth and width, siltation ponds etc. to ensure that no coal dust flows into the Dhudhmatia nala. On the slopes from coal weighbridge area, drains were constructed and connected to a newly constructed siltation pond. This was being done for preventing coal dust flow to downside in river Barki. However civil work has not been completed yet. Some gabbions may be required there for complete control of coal dust/silt flow.

Following conditions are being complied but further action needed:

Condition ii: Environmental parameters were not displayed at suitable locations.

(d) Noise and Vibration monitoring and prevention

Following conditions are being complied but further action needed:

Condition i & iii: From the submitted data it is not clear whether the monitoring has been done at night or not. Total number of Ear plugs/Muffs provided in the year 2017, 2018, 2019 was not sumitted by PP.

(e) Mining Plan

Following conditions are partially complied:

Condition iii: Project proponent did not show any effects/process in the project done for reducing energy and fuel consumption & use of renewable energy.

Following conditions are being complied but further action needed:

Condition ii: In the backfilled area in the lower portion vehicles plied for various activities. However it was suggested that proper slope stability studies may be done so that there is no danger from dump failures/slope failures which may lead to risk to men and machinery.

(f) Land Reclamation

Following conditions are partially complied:

Condition v: Compliance same as specific condition xiv.

Following condition is assured to comply but further action needed:

Condition iii: PP should submit progressive compliance status vis-à-vis the post mining land use pattern as per this EC condition.

(g) Green Belt

Following conditions are partially complied:

Condition ii: Greenbelt consisting of 3-tier plantation of width not less than 7.5 m has not been developed. Some Green belt has been developed along the major approach/coal transport roads. However, there remains many areas along the above roads where green belt has to be developed.

(h) Public hearing and Human health issues

Following conditions are partially complied:

Condition i: Project proponent has not submitted weekly illumination monitoring data.

Following conditions are being complied but further action needed:

Condition iii: No details have been provided regarding training provided in the year 2018 and 2019. Project proponent should explain why only 41 dust masks were issued in the year 2019 and Nil dust

masks were issued in the year 2016 and 2017. No details have been provided regarding training provided in the year 2018 and 2019.

Condition iv: Project authorities should take concrete steps for controlling air and water pollution as committed in Public hearing.

(i) Corporate Environment Responsibility

Following conditions are partially complied:

Condition i: Activity wise expenditure (on items related to CER) has not been submitted to this office.

Condition ii: In the environmental policy no details have been provided on 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. Project authorities should also submit documents to prove that there exists system of reporting infringements/ deviation/ violation of the environmental/forest/wildlife norms/conditions and/or shareholders /stake holders.

Condition iv: Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company (duly approved by competent authority) has not been submitted by project proponent. Expenditure data on environment protection measures and year wise progress of implementation of action plan should be submitted to IRO, Ranchi.

(j) Miscellaneous

Following conditions are being complied but further action needed:

Condition ii: Date of receipt of the EC letter by Mukhiya is not mentioned.

Condition iv: Display of criteria pollutants or critical sectoral parameters not displayed at a convenient location for disclosure to public.

Following condition complied but timeline not followed.

Condition i: The advertisement has been made in "Prabhat Khabar" and in "the pioneer" on 25.07.2020.

13.01.21

(Rajeev Ranjan)
Scientist E/ Additional Director