

No.J-11015/610/2007-IA-II (M) pt. file
Government of India
Ministry of Environment, Forest and Climate Change
IA-II (Coal Mining) Division

Indira Paryavaran Bhavan,
Jorbagh Road, N Deni-3
Dated: 16th March, 2017

To,

The General Manager (Mining)/Project Officer,
M/s Central Coalfields Limited,
Darbhanga House,
Ranchi - 834 029 (Jharkhand)
Email: envccl@yahoo.com

Sub: Expansion of Ashok OCP from 12 MTPA to 14 MTPA of M/s Central Coalfields Limited located in ML area of 793.14 ha in Tehsil Tandwa District Chatra (Jharkhand) - Environmental Clearance - reg.

Sir,

This is with reference to your letter No.HOD/(E&F)/2016/422 dated 30.11.2016, online proposal No.IA/JH/CMIN/9333/2007 dated 01.12.2016 and subsequent letters/email dated 08.12.2016, 27.12.2016, 30.01.2017, 01.02.2017 and 02.03.2017 for grant of environmental clearance to the above-mentioned project.

2. The Ministry of Environment, Forest and Climate Change has considered the application. It is noted that the proposal is for grant of environmental clearance to the expansion of Ashok Opencast Coal Mine from 12 MTPA to 14 MTPA of M/s Central Coalfields Limited located in mine lease area of 793.14 ha in Tehsil Tandwa, District Chatra (Jharkhand).

3. The proposal was considered by the Expert Appraisal Committee (EAC) in the Ministry for Thermal & Coal Mining Projects, in its 1st meeting held on 27th December, 2016 and 4th meeting held on 30-31 January, 2017. 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) Earlier, the EC was issued vide letter No. J-11015/610/2007-IA.II(M) dated 30th March, 2016 for expansion of Ashok OCP from 10 to 12 MTPA in the mine lease area of 793.14 ha.

(ii) The latitude and longitude of the project are 23° 42' 53" to 23° 44' 41" N and 84° 57' 0" to 85° 02' 11" E respectively.

(iii) Joint Venture: There is no JV

(iv) Coal Linkage : TPS and other miscellaneous basket consumers

(v) Employment generated / to be generated: Employment have been given to 450 land losses.

(vi) Benefits of the project:

- Improvements in Physical Infrastructure
- Improvements in Social Infrastructure
- Increase in Employment Potential
- Contribution to the Exchequer
- Meet energy and steel sector requirement

- The beneficiation/washing of coal will lead to improvement in performance of power plant,
 - Reduction in particulate emission
 - Reduction in load on Railway Network
 - Reduction in handling and transportation cost of coal
- (vii) The land usage of the project will be as follows:

This is a running mine and the land use of core zone is given below				
SN	Particulars	Forest	Non-forest	Area (Ha)
1	Quarry	233.71	317.47	551.18
2	Washery	0.00	24.00	24.00
3	Workshop & store	0.00	14.35	14.35
4	Sub-station	0.00	2.00	2.00
5	CHP	0.00	31.78	31.78
6	Safety zone, green belt & plantation	5.60	164.23	169.83
	Total	239.31	553.83	793.14

Pre-Mining:

S.No.	Particulars	Forest	Non-forest	Area (Ha)
1	Quarry	233.71	317.47	551.18
2	Washery	0.00	24.00	24.00
3	Workshop & store	0.00	14.35	14.35
4	Sub-station	0.00	2.00	2.00
5	CHP	0.00	31.78	31.78
6	Safety zone, green belt & plantation	5.60	164.23	169.83
	Total	239.31	553.83	793.14

Post- Mining:

SN	Description	Land-use (Ha)				
		Plantation	Water Body	Public/CCL use	Undisturbed	Total
1	Backfilled Area/Internal OB Dump	377.08	0.00	0.00	0.00	377.08
2	Excavation void	0.00	128.51	45.59	0.00	174.10
3	Roads	0.00	0.00	0.00	0.00	0.00
4	Built-up (Infrastructure)	0.00	0.00	72.13	0.00	72.13
5	External OB Dump	0.00	0.00	0.00	0.00	0.00

SKL

6	Unworked Area & Safety Zone	100.00	0.00	64.23	5.60	169.83
	Total	477.08	128.51	181.95	5.60	793.14

Core area:

S No	Particulars	Forest	Non-forest	Area (Ha)
1	Quarry	233.71	317.47	551.18
2	Washery	0.00	24.00	24.00
3	Workshop & store	0.00	14.35	14.35
4	Sub-station	0.00	2.00	2.00
5	CHP	0.00	31.78	31.78
6	Safety zone, green belt & plantation	5.60	164.23	169.83
	Total	239.31	553.83	793.14

(viii) The total geological reserve is 213.44 MT. The mineable reserve 186.16 MT, extractable reserve is 186.16 MT (the balance extractable coal reserve has been estimated as 109.98 MT (as on March '2015). The per cent of extraction would be 100 %.

(ix) The coal grade is G8 & G10. The stripping ratio is 1.31 Cum/tonne. The average Gradient is 3- 4 deg. There will be 11 seams with thickness ranging :-

S. No	Particulars	Thickness
1.	Seam Thickness	
A	Lower Dakra (Comb.	18.37- 23.09
B	Upper Dakra	1.30 - 4.54
C	Bukbuka (comb.)	9.14 -14.18
D	Bukbuka (Lower)	2.24 - 4.50
E	Bukbuka (Upper)	5.45 - 7.44
F	Bukbuka (Top)	0.59 - 6.22
G	Bisrampur (Lower)	3.06 - 5.92
H	Bisrampur (Upper)	2.15 - 4.44
I	Karkatta	3.67 – 6.31
J	K1	0.33 – 2.15
K	K2	0.75 – 2.03

(x) Total estimated water requirement is 3843 m³/day. The level of ground water ranges from 3 m to 15 m.

(xi) The method of mining would be opencast, 12 MTPA by surface miner and 2 MTPA through shovel dumper.

(xii) There is no external OB dump and 1 internal dump with Quantity of 242.99 Mcum in an area of 377.08 ha.

(xiii) Total quarry area is 551.18 ha, backfilled quarry area of 377.08 ha shall be reclaimed with plantation and a void of 174.10 ha with depth 40 m will be created after mining, and will be used as water body.

(xiv) The seasonal data for ambient air quality has been documented and all results at all stations are within prescribed limits.

Ashok OCP 12-14 MTPA_EC by M/s CCL



- (xv) The life of mine is nine years.
- (xvi) Transportation: Coal transportation in pit by Rear dumpers from in pit to pit head coal handling plant, Surface to Siding by Belt conveyors and loading at siding by Rail dispatch.
- (xvii) There is R & R involved. There are 793 PAFs.
- (xviii) Cost: Total capital cost of the project is Rs.34163 lakhs. CSR Cost As per CSR policy & Companies Act, 2013. R&R Cost 105 lakhs. Environmental Management Cost Rs. 4101.86 Lakhs.
- (xix) Water body: Two nallas namely Dembua & Benti, originating from the block and joining Damodar river flowing from West to East of the main drainage region.
- (xx) Approvals: Ground water clearance applied on 28.11.2013. The Mine Plan and Mine Closure Plan for the proposed expansion of Ashoka OCP from 10-14 MTPA was approved by the Board of Directors in its meeting held on 15th March, 2016.
- (xxi) Wildlife issues: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.
- (xxii) Forestry issues: Total forest land involved is 259.17 ha, for which FC has been obtained.

S. No	Forest Land diverted(Stage II)		Forest Land	
	Vide letter no	Area	In present proposal	Outside present proposal
1	8-178/97-FC, dated 9/11/1999.	166.91 Ha	147.05 Ha	19.86 Ha
2.	8-07/2013-FC dated 07-02-2014	92.26 Ha	92.26 Ha	0
Total		259.17 Ha	239.31 Ha	19.86 Ha

- (xxiii) Total afforestation plan shall be implemented covering an area of 477.08 ha at the end of mining. Green Belt/safety zone/plantation over an area of 169.83 ha. Density of tree plantation 2500 trees/ ha of plants.
- (xxiv) There are no court cases/violation pending with the project proponent.
- (xxv) Public Hearing was held on 13.3.2007 at Sarwati Shishu Vidya Mandir (near Hanuman Mandir), B.O.C.N Company, Piparwar, PO Bachra, District Chatra Jharkhand.
- (xxvi) The last compliance report from the RO's office was issued in May, 2013. Another inspection has already been done by RO, Ranchi, MoEF&CC on 26.02.2016 and certified report of inspection has been sent to this Ministry vide their letter dated 16th March, 2016. A copy of the same was presented before the EAC in the meeting.
- (xxvii) Consent to Establish for expansion from 10 MTPA to 12 MTPA is valid for 6 months from the date of issue i.e. up to 31.07.2017. Consent to Operate for the earlier capacity of 10 MTPA is valid up to 30.09.2017.

4. In response to the observations of the EAC in its meeting held in March, 2016, the status of compliance was reported as under:-

(a) Different dust mitigative measures would include the following:-

- Water sprinkling on haul roads and coal transport rods is being done by mobile and static sprinklers.
 - 6 numbers of mobile sprinklers are presently deployed,



- 116 numbers of static sprinklers are in place covering about 2.5 km of coal transport road,
- 5 numbers of surface miners are deployed for coal production which eliminate need of drilling, blasting and crushing of coal.
- Project has planted about 5.08 Lakh saplings on backfilled, roadside and around infrastructure to arrest migration of dust.
- About 7.7 km PCC road constructed for coal transportation.
- Work order for installing 6 numbers of mist sprayers issued to M/S Bharat Earth Moers Limited on 18th November, 2016.
- 4 mist sprayers already deployed at the OCP site.

(b) Monitoring of PM₁₀ at different locations (average results) are given below for quarter ending June 2016 and September 2016. The trend shows reduction in PM₁₀ concentration in air at most of the locations.

S. No.	Station	PM ₁₀ (Quarter ending June 16)	PM ₁₀ (Quarter ending Sept 16)
1	Bijan village	77.5	75.16
2	Tola across BentiNala	98.5	82.66
3	Ashok Pit	104.5	93.16
4	Benti village	78.75	79.16

(c) Progress of Piparwar Railway Siding: As per information from RITES, track linking of 0125 is to be carried out and testing of rail track (engine rolling) is scheduled by middle of December 2016 after which diesel engine can operate in this section.

(d) The improvement in air quality as reflected in PM₁₀ values at different locations due to mitigating measures already undertaken, would be further refined with the deployment of 6 mist sprayers at mine.

(e) R & R of Project Affected Families:-

- Resettlement and rehabilitation of PAFs is in progress OCP as per the R&R policy of CIL.
- 66 families from Thena and 7 families from Benti village i.e. total 73 percent affected families have been shifted.
- Plots of 5 decimal each have allotted to 130 PAFs at Rehabilitation site.
- Rs.1.14 crores has already been paid to 130 PAF's against land compensation.
- Employment provided to 122 persons.

5. The Committee in its 4th meeting held on 30-31 January, 2017 having taken note of the earlier deliberations and satisfactory fulfilment of the requirements, recommended the proposal for grant of Environmental Clearance with the production capacity up to 14 MTPA. The Minister of Environment, Forest and Climate Change hereby accords Environmental Clearance to the **expansion of Ashok OCP from 12 MTPA to 14 MTPA of M/s Central Coalfields Limited located in ML area of 793.14 ha in Tehsil Tandwa District Chatra (Jharkhand) under the**

provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments/circulars thereto subject to the compliance of the terms & conditions and environmental safeguards, as under:-

A. Specific Conditions

- (i) The maximum production from the mine at any given time shall not exceed the limit as prescribed in the EC.
- (ii) The validity of the EC is for the life of the Mine or as specified in the EIA Notification, 2006, whichever is earlier.
- (iii) Transportation of coal should be carried out by covered trucks. Mitigative measures to be undertaken to control dust and other fugitive emissions all along the roads by providing sufficient numbers of water sprinklers.
- (iv) Continuous monitoring of occupational safety and other health hazards, and the corrective actions need to be ensured.
- (v) Controlled blasting techniques should be adopted to control ground vibration and fly rocks.
- (vi) A progressive afforestation plan shall be implemented covering an area of **477.08 ha** at the end of mining, which includes reclaimed External OB dump area nil, Internal OB dump area (**377.08 ha**) and Green belt (**100 ha**) and in township located outside the lease by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around **2500** plants per ha. Massive plantation shall be carried out in open spaces in and around the mine and a 3-tier avenue plantation along the main approach roads to the mine.
- (vii) An estimated total **242.99 Mm³** of OB will be generated during the entire life of the mine. there is no external OB dump. **242.99 Mm³** of will be one internal OB dump in covering an area of **377.08 ha**. The maximum height of internal OB dump will not exceed **30 m** above ground level. The maximum slope of the dump shall not exceed **28 degrees**. Monitoring and management of reclaimed dump sites shall continue till the vegetation becomes self- sustaining and compliance status shall be submitted to Regional Office on yearly basis.
- (viii) Of the total quarry area of **551.18 ha**, the backfilled quarry area of **377.08 ha** shall be reclaimed with plantation and a void of **174.10 ha** at a depth of **40 m** is proposed to be converted into a water body shall be gently sloped and the upper benches shall be terraced and stabilised with plantation/afforestation by planting native plant species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha.

B. General Conditions

(a) Mining

- (i) No change in mining technology and scope of work shall be made without prior approval of the Ministry of Environment, Forest and Climate Change. No change in the calendar plan including excavation, quantum of coal and waste should be made.
- (ii) Mining shall be carried out as per the approved mining plan, and also abiding by the relevant laws related to coal mining and the circulars issued by Directorate General Mines Safety (DGMS). An approved progressive Mine Closure Plan shall strictly be complied with and submitted.



(b) Land Reclamation

- (i) Digital processing of the entire lease area using remote sensing technique shall be carried out regularly once in three years for monitoring land use pattern and report submitted to Ministry of Environment, Forest and Climate Change its Regional Office.
- (ii) Final mine void depth should not be more than 40 m. The void area should be converted into water body. The remaining area should be back filled up to the ground level and covered with thick top soil. The land after mining should be restored for agriculture or forestry purpose.
- (iii) The top soil, if any, shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation. The overburden dumps should be vegetated with suitable native species to prevent erosion and surface run off. The entire excavated area shall be backfilled and afforested in line with the approved Mine Closure Plan. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.
- (iv) Greenbelt shall be developed all along the mine lease area in a phased manner. The width of the green belt along forest area should not be less than 7.5 m, and the total area covered by 3 tier green belt shall not be less than 100 ha. A 3-tier green belt comprising of a mix of native species shall be developed all along the major approach roads.

(c) Emissions, Effluents, and Waste Disposal

- (i) Transportation of coal by road should be carried out by covered trucks only. Effective measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM₁₀ and PM_{2.5} such as haul road, loading and unloading point and transfer points. Fugitive dust emissions from all the 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 in this regard.
- (ii) Vehicular emissions shall be kept under control and regularly monitored. Project should obtain 'PUC' certificate for all the vehicles from authorized pollution testing centres.
- (iii) 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 PM₁₀, PM_{2.5}, SO₂ and NO_x. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, etc carried out at least once in six months.
- (iv) Crusher/feeder and breaker material transfer points should invariably be provided with dust suppression system. Belt-conveyors should be fully covered to avoid air borne dust. Drills shall be wet operated or fitted with dust extractors.
- (v) The project proponent shall not alter the major channels around the site. Appropriate embankment should be provided along the side of the river/nallah flowing near or adjacent to the mine. The embankment constructed along the river/nallah boundary should be of suitable dimensions and critical patches should be strengthened by stone pitching on the river front side and stabilised with plantation so as to withstand the peak water flow and prevent mine inundation.
- (vi) Rainwater harvesting shall be implemented for conservation and augmentation of ground water resources in the area in consultation with Central Ground Water Board.
- (vii) Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, coal heaps and OB dumps to prevent run off of water and flow of sediments directly into



the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly. Sump capacity should provide adequate retention period to allow proper settling of silt material. Dimension of the retaining wall to be constructed at the toe of the dumps and OB benches within the mine to check run-off and siltation should be based on the rainfall data.

(viii) Industrial waste water (CHP, workshop and waste water from the mine) should 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. Oil and grease trap should be installed before discharge of workshop effluents.

(d) Noise & Vibration Control

(i) Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with ear plugs/muffs.

(ii) Controlled blasting techniques should be practiced with use of delay detonators to mitigate ground vibrations and fly rocks.

(e) Occupational Health & Safety

(i) Besides carrying out regular periodic health check-up of their workers, 20% of the workers identified from workforce engaged in active mining operations shall be subjected to health check-up for occupational diseases and hearing impairment, if any, through an specialised agency /institution within the District/State and the results reported to this Ministry and to DGMS.

(ii) 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. Supervisory staff shall be held responsible for ensuring compulsory wearing of dust mask.

(iii) In case of outsourcing of work through MDO, the project proponent shall ensure the strict enforcement of the above conditions.

(f) Biodiversity

(i) 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.

(g) Implementation of Action Plan as per Public Hearing and CSR Activities

(i) Implementation of Action Plan on the issues raised during the Public Hearing shall be ensured. The Project Proponent shall complete all the tasks as per the Action Plan submitted with budgetary provisions during the Public Hearing. Land oustees should be compensated as per the norms laid out R&R Policy of the Company or the National R&R Policy or R&R Policy of the State Government, whichever is higher.

(ii) The Board of every company, shall ensure that the company spends, in every financial year, at least two per cent. of the average net profits of the company made during the three immediately

preceding financial years, in pursuance of its Corporate Social Responsibility Policy under Section 135 of the Companies Act, 2013, for the socio economic development of the neighbourhood.

(h) Corporate Environment Responsibility

- (i) The Company should have a well laid down Environment Policy approved by the Board of Directors.
- (ii) 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.
- (iii) 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.
- (iv) The funds earmarked for environmental protection measures should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry and its Regional Office

(i) Statutory Obligations

- (i) Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, NGT and any other Court of Law, if any, as may be applicable to the project.
- (ii) This Environmental Clearance is subject to obtaining requisite NBWL Clearance from the Standing Committee of National Board for Wildlife, if any, as applicable to the project.
- (iii) The project proponent shall obtain Consent to Establish and Consent to Operate from the concerned State Pollution Control Board prior to increase in capacity of washery and effectively implement all the conditions stipulated therein.
- (iv) Project Proponent shall obtain the necessary prior permission from the Central Ground Water Authority (CGWA) for drawl of water (surface and ground water).

(j) Monitoring of Project

- (i) Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring shall 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 Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board.
- (ii) The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment, Forest and Climate Change, its Regional Office, Central Pollution Control Board and State Pollution Control Board.
- (iii) 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.
- (iv) The activities pertaining to development of green belt/horticulture shall be reported to concerned Regional Office of MoEF&CC on six monthly basis from the date of commencement of mining operations.



(v) For half yearly monitoring reports, the data should be monitored for the period of April to September and October to March of the financial years and submitted to the concerned authorities within 2 months of the completion of periodicity of monitoring.

(k) Miscellaneous

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

(ii) An electronic copy of the EC letter shall be marked to the concerned State Pollution Control Board, Regional Office, District Industry Sector and Collector's Office/Tehsildar Office for information in public domain within 30 days.

(iii) The EC letter shall be uploaded on the company's website. The compliance status of the stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in public domain. The monitoring data of environmental quality parameter (air, water, noise and soil) and critical pollutant such as PM₁₀, PM_{2.5}, SO₂ and NO_x (ambient) and critical sectoral parameters shall also be displayed at the entrance of the project premises and mine office and in corporate office and on company's website.

(iv) The project authorities should advertise at least in two local newspapers widely circulated, 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 also at web site of the Ministry of Environment, Forest and Climate Change at www.environmentclearance.nic.in and a copy of the same should be forwarded to the Regional Office.

(v) The Environmental Statement for each financial year ending 31 March in Form-V is mandated to be submitted by the PP for the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be uploaded on the Company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MoEF&CC by e-mail.

(k) Miscellaneous

6. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during their presentation to the EAC. The commitment made by the project proponent to the issue raised during Public Hearing shall be implemented by the proponent.

7. The project 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.

8. The PP shall set up an Environment Audit cell with responsibility and accountability to ensure implementation of all the EC Conditions.

9. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this EC and attract action under the provisions of Environment (Protection) Act, 1986.



10. 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 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. The PP shall ensure to undertake and provide for the costs incurred for taking up remedial measures in case of soil contamination, contamination of groundwater and surface water, and occupational and other diseases due to the mining operations.

11. 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.

12. This EC supersedes the earlier EC granted vide letter No.J-11015/610/2007-IA.II (M) pt. II dated 30th March, 2016 for 12 MTPA in an area of 793.14 ha.

SK
16/3/2017
(S. K. Srivastava)
Scientist E

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 Anand 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 Advisor, Coal India Limited, SCOPE Minar, Core-I, 4th Floor, Vikas Marg, Laxmi Nagar, New Delhi.
8. The District Collector, **Chatra**, Government of Jharkhand
9. Monitoring File 10. Guard File 11. Record File. 12. Notice Board

SK
16/3/2017
(S. K. Srivastava)
Scientist E

