



South Eastern Coalfields Limited

(A Subsidiary of Coal India Limited)

A 'MINIRATNA' PSU

Seepat Road, PO. SECL,
BIL ASPUR (CG)-495 006.

Tel. 07752- 246324

Fax. 07752- 246324

संदर्भ: SECL/BSP/WBP-Env./Gevra OCP/ 5349

दि 12 फरवरी, 2014

प्रति,

✓ श्रीमान् महाप्रबंधक, गेवरा क्षेत्र,
श्रीमान् महाप्रबंधक (यो/परि), एसईसीएल, बिलासपुर,
श्रीमान् महाप्रबंधक (सी.एस.आर), एसईसीएल, बिलासपुर,
श्रीमान् महाप्रबंधक (एल एण्ड आर), एसईसीएल, बिलासपुर,



विषय: Expansion (under 7(ii) of EIA Notification 2006) of Gevra OC Project [from 35 MTPA to 40 MTPA in ML area of 4058.146 ha] of M/s. South Eastern Coalfields Limited, dist. Korba, Chhattisgarh- (Latitude; 20°18'00" and 22°21'42" North; Longitude; 82°32'20" and 82°39'30" East - Environmen Clearance reg./ गेवरा क्षेत्र की गेवरा खुली खदान (35 एम.टी.पी.ए. से 40 एम.टी.पी.ए.) की पर्यावरणीय स्वीकृति बाबत।

महोदय,

Kindly find enclosed herewith copy of the Environmental Clearance in respect of Gevra OCP (35 MTY to 40 MTY) issued by MoEF, New Delhi under Clause 7(ii).

It is requested that stipulated conditions may be complied. Please do the needful at your end.

संलग्न: यथोक्त.

भवदीय,

12/2/14
(सू. टी. कंझरकर),
महाप्रबंधक (वि.बै.परि-पर्या.)

प्रतिलिपि—

1. निदेशक (कार्मिक) —सादर सूचनार्थ —सी.एस.आर. के संबंध में.

2. श्रीमान् महाप्रबंधक (त.से./नि.से.), एसईसीएल, बिलासपुर,

3. श्रीमान् तकनीकी सचिव, निदे.तक. (संचालन), एसईसीएल, बिलासपुर.

4. मुख्य महाप्रबंधक (डब्ल्यू.बी.पी./एफ.पी.डी./पर्यावरण) सी.आई.एल, कोलकाता.

12/2/14
Dr. Anil Kumar
Area Survey
Overhaul

गेवरा परियोजना का 40 मी० रन वार्षिक उत्पादन
क्षमता विस्तार का पर्यावरणीय स्वीकृति की

① श्रीमति झूलबाई
ग्राम पंचायत रलिया

झूलबाई
सरपंच
ग्राम पंचायत-रलिया
वि. ख. - कटघोरा
जिला-कोरबा (छ.ग.)
22/02/2014


सरपंच

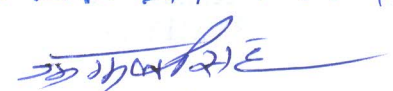
ग्राम पंचायत पोड़ी
जनपद पंचायत कटघोरा
जिला कोरबा (छ.ग.)

रक प्रति प्राप्त किया

② श्रीमति सरस्वती कंवर
ग्राम पंचायत - पोड़ी, बाइनपाठ

③ श्री जुगुल सिंह कंवर
ग्राम पंचायत अमगांव

रक प्रति प्राप्त किया


सरपंच
ग्राम पंचायत अमगांव
वि. ख. पाली, जि. कोरबा (छ.ग.)

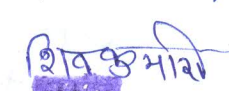
④ श्री श्याम सुन्दर कैवट
घाघर 57 गार्ड

रक प्रति प्राप्त किया


श्यामसुन्दर कैवट
घाघर
गार्ड क्र 57, गेवरा बस्ती
नगर पालिका निगम कोरबा (छ.ग.)

⑤ ^{शिवकुमारी}
श्रीमति ~~मिलि~~ सिंह ठापुर
सरपंच - मिलाई बाजार

रक प्रति प्राप्त किया


शिवकुमारी
सरपंच
ग्राम पंचायत-मिलाई बाजार
जनपद पंचायत कटघोरा

No. J-11015/85/2010-IA-II (M)
GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT AND FORESTS
IA-II (Coal-Mining) Division

Paryavaran Bhawan
CGO Complex, Lodhi Road
New Delhi- 110 003
Dated: 31st January, 2014

To,

✓ The General Manager (W B P & Environment)
✓ **M/s South Eastern Coalfields Ltd.,**
W B P & Environment Department,
Seepat Road, P B. No. 60
Bilaspur – 495006
Chhattisgarh

Subject: Expansion (under 7(ii) of EIA Notification 2006) of Gevra OCP project [from 35 MTPA to 40 MTPA in ML area of 4058.146 ha] of M/s South Eastern Coalfields Limited, dist. Korba, Chhattisgarh - (Latitude; 20°18'00" and 22°21'42" North; Longitude; 82°32'20" and 82°39'30" East) - Environment Clearance req.

Sir:

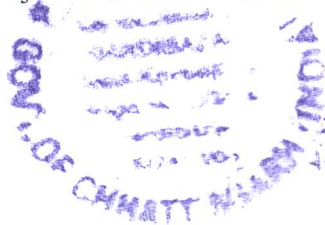
This is with reference to letter no. 43011/10/2010-CPAM dated 23.02.2010 along with application under 7(ii) of EIA Notification 2006. Revised application vide letter no. SECL/BSP/Env./Gevra 47.25/4982 dated 01.04.2013 submitting along with Form -1, EIA/EMP for Gevra OC Expansion (normative capacity 35 MTPA to peak capacity 47.25 MTPA. Reference is also invited to the letters dated 07.09.2013, 18.10.2013; e-mail dated 19.11.2013 and letter no. SECL/BSP/Envtt./Gevra OC dated 14.12.2013 on the above-mentioned subject.

2. It is noted that the proposal is for grant of Environmental Clearance for **Expansion (under 7(ii) of EIA Notification 2006) of Gevra OCP project [from 35 MTPA to 47.25 MTPA in ML area of 4058.146 ha] of M/s South Eastern Coalfields Limited, dist. Korba, Chhattisgarh.** The Ministry of Environment & Forests has considered the application. The proposal was considered in the 2nd EAC meeting held during 3rd -4th October, 2013 which recommended the project for enhancement by 2 MTPA i.e. from 35 to 37 MTPA. MoC requested the MoEF in the meeting held on 11th December, 2013 to review the enhancement of production in Gevra Open cast mine from 35 MTPA to 40 MTPA as the project has direct bearing on current year's coal production targets. The project was further deliberated in the EAC meeting held on 12-13 December, 2013 which recommended for the enhancement of production from 35 to 40 MTPA. The proponent informed that:

- i. It is the expansion project of M/s South Eastern Coalfields Limited. MoEF accorded EC vide letter no. J-11015/484/2007-IA.II (M) dated 03.06.2009.
- ii. Proponent is seeking expansion of the project under 7(ii) of EIA Notification 2006.
- iii. The land usage of the project will be as follows:

EC_Gevra Expansion

एन.डी.एल., बिलासपुर
पंजीयन क्रमांक 11132
दिनांक 11-2-2014



Attested

[Signature]
Asst. Advocate/Notary
Jardi Rata, Dist. Korba IC

Pre-mining: The Expansion of the project will be undertaken in two Phases. In the first phase Enhancement of capacity upto the peak capacity of the project (47.25MTPA) by carrying out mining in the already acquired land of the project where Stage-1 Forestry clearance has been obtained i.e. 4058.146 Ha. The remaining 126.341Ha will be acquired under the second phase of mining after obtaining the Stage-1 forestry clearance, bringing the area to be a total of 4184.486Ha.

Phase-I

Sl No.	Purpose	Mining Lease Area (in Ha)				Total (in Ha)
		Government		Private		
		Forest	Others	Agriculture	Others	
1	Area to be excavated	337.287	300.196	1273.426	0.000	1910.910
2	Storage for top soil	0.000	5.000	0.000	0.000	5.000
3	Overburden / dumps	0.000	188.690	291.310	0.000	480.00
4	Mineral storage	0.000	5.000	0.000	0.000	5.000
5	Infrastructure (workshop, admin. Building)	515.434	73.169	504.509	0.000	1093.112
6	Roads	0.000	0.000	6.000	0.000	6.000
7	Green belt	0.000	5.670	0.000	0.000	5.670
8	Effluent treatment plant	0.000	0.000	0.000	0.000	0.000
9	Township area (outside mine)/ Inhabited area	0.000	0.000	134.280	0.000	134.280
10	Other (specify) Safety zone & area for future mining	59.568	47.560	311.046	0.000	418.174
	Total	912.289	625.285	2520.571	0.000	4058.146

Phase-II

Sl No.	Purpose	Mining Lease Area (in Ha)				Total (in Ha)
		Government		Private		
		Forest	Others	Agriculture	Others	
1	Area to be excavated	463.628	300.196	1273.426	0.000	2037.250
2	Storage for top soil	0.000	5.000	0.000	0.000	5.000
3	Overburden / dumps	0.000	188.690	291.310	0.000	480.00
4	Mineral storage	0.000	5.000	0.000	0.000	5.000
5	Infrastructure (workshop, admin. Building)	515.434	73.169	504.509	0.000	1093.112
6	Roads	0.000	0.000	6.000	0.000	6.000
7	Green belt	0.000	5.670	0.000	0.000	5.670
8	Effluent treatment plant	0.000	0.000	0.000	0.000	0.000
9	Township area (outside mine)/ Inhabited area	0.000	0.000	134.280	0.000	134.280
10	Other (specify) Safety	59.568	47.560	311.046	0.000	418.174

zone & area for future mining						
Total	1038.63	625.285	2520.571	0.000	4184.486	

ii. Post- Mining:

Stages of Mining	Activity	Forest	Agriculture	Govt.	Total (in Ha)
Post-Mining	Void / water body	Nil	Nil	659.250	659.250
	Reclaimed internal OB dump	1378.00	Nil	Nil	1378.00
	Reclaimed external OB dump	480.00	Nil	Nil	480.00
	Green Belt	5.67	Nil	Nil	5.67
	Infrastructures	515.434	504.509	73.169	1093.112
	Road diversion	Nil	6.00	Nil	6.00
	Rehabilitation site	Nil	134.28	Nil	134.28
	Safety zone	59.568	311.046	57.56	428.174
	Total	2438.672	955.835	789.979	4184.486

- iv. The total geological reserve is 1026.32 MT. The mineable reserve is 746.62 MT (as on 01.04.2013), extractable reserve is 746.62 MT (as on 01.04.2013) MT. The per cent of extraction would be 90 %.
- v. The coal grades is F having stripping ratio of 0.72 Te/Cum and 1.43 cum / Te of coal . The average Gradient is 4.8 to 9.50 degree. There will be total four seams with thickness ranging from 1.10m to 45.23m.
- vi. Hasdeo river & Ahiran river, Kholar nalla& other 1st order streamlets flowing adjacent to the proposed mine.
- vii. The total estimated water requirement is (Average demand 18255 m³/day & Peak demand 21918 m³/day. The level of ground water ranges from 2.31 m to 9.90m.
- viii. The Method of mining would be opencast mining with shovel- dumper & Surface miner.
- ix. There are seven external OB dump covering an area of 480 ha having a height upto 30 m (max) with the quantity of 147.60 mm³. The final mine voids will have an area of 659.250 Ha (surface dump with depth of 380 m. There are eight internal dumps having an area of 1378 ha and height 30 m with a quantity of 1119.40 mm³ which is proposed to be converted into a water body. Out of total quarry area 2037.250 Ha backfilled quarry area will be 1378.00 Ha which shall be reclaimed with plantation. A void of 659.250 ha with depth of about 318 mtrs, which is proposed to be converted into water body. There will be no external OB dump at the end of mining. Backfilling has already starts & total backfilling will start from 2018-19.
- x. The seasonal data for ambient air quality has been documented and all results at all stations are within prescribed limits.
- xi. The life of mine is 21 Years (as on 1.4.2013).
- xii. Transportation: Transportation of coal in pit by Coal Tippers to the pit head stockpile. Surface to siding by conveyor belt, siding to loading in to Rly. wagons by SILO/ by Bunker and chute

- xiii. There is no R & R involved. No of PAFs is 2420.
- xiv. Cost: Total capital cost of the project is Rs. 2675.674 Crore. The cost of production would be Rs. 243.59 at 100% operating level and Rs 210.69 at 85% operating level / Tonne. CSR Cost (Capital cost: Rs.5 / tonne of Coal + CD fund one crore. R&R Cost Rs. 95.8206 crore. Environmental Management Cost is Rs. 133.8661 crore.
- xv. Approvals: Ground water clearance obtained on 14.06.2004. The Mine Closure approval is under finalization. The Gevra Opencast Expansion Project from 25MTY to 35MTY was approved under Emergency Coal Production Plan (ECPP) by Govt. of India, Ministry of Coal letter no. 43011-38(4)-2005-CPAM, New Delhi dtd. 4th May'2006. The SECL Board approved the Peak Production Capacity of Gevra OC Expansion upto 1.35 times of their normative capacity i.e. from 35MTPA to 47.25MTPA in its 182nd meeting held on 17th August 2009.
- xvi. Wildlife issues: There are no national Parks, wildlife sanctuary, biosphere reserves found in the 10 km buffer zone.
- xvii. Forestry issues:

Area (in Ha)	Stage-I FC issued vide letter no. & date	Stage-II FC issued vide letter no. & date
564.885	F.No.8-79/2006-FC dt.20 th October, 2006	Govt. of CG. has forwarded the FC proposals for grant of Stage-II to MoEF, New Delhi on 18.09.2013
192.046	F.No.8-77/2006-FC dt.20 th October, 2006	
46.198	F.No.8-81/2006-FC dt.20 th October, 2006	
100.898	F-5-20/2004/10-2 dt. 15.3.2005	F.No.8-33/2005-FC dt. 5.5.2008.
904.027	SUB TOTAL	
8.262 *	Applied, pending for grant of Stage- I FC	
912.289	TOTAL	

- xviii. The proponent has further mentioned that Upper Kusmunda Seam in Laxman OCP has been mined by Laxman Project and as per approved PR & EMP of Gevra OCP (35 MTY), due to technical reasons Lower Kusmunda Seam property of Laxman OCP has to be mined by Gevra Project. Thus, 8.262 hectares forest land has been applied for Stage-I FC by Kusmunda Area as the proponent has excavated Upper Kusmunda Seam. Therefore, the proponent seeks EC for the 904.027 ha.
- xix. Total afforestation plan shall be implemented covering an area of 2438.672 ha at the end of mining where reclaimed external OB dump is 480 Ha and Internal OB Dump 1378 ha. Green Belt over an area of 5.670 ha. Density of tree plantation 2500 trees/ ha of plants.
- xx. Violation cases: There are two court cases pending in the Courts of JMC-I Class. The matter is subjudice. Presently, the proponent has exceeded the production limit and thus a violation cases due to excess production.
- xxi. Public hearing: Not applicable as application is under 7(ii) of the EIA Notification 2006.
- xxii. Certificate of compliance of earlier EC from MoEF, Regional office, Bhopal has been received

vide their letter no. 3-53/2009 (Env)/1313 dtd. 16/19.08.2013.

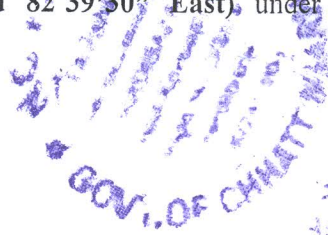
3. The EAC in its meeting in October, 2013 had considered the enhancement of production under 7(ii) of the EIA Notification, 2006 and recommended for enhancement of production to 2.0 MTPA. MoC requested the MoEF in the meeting held on 11th December, 2013 to review the enhancement of production in Gevra Open cast mine from 35 MTPA to 40 MTPA as the project has direct bearing on current year's coal production targets. Keeping this in view, the proponent further informed that:

- i. 5.0 MTPA coal will be disbursed to NTPC power plant through existing Silo and MGR system to meet the extra demand of NTPC and there will be no road transportation of coal
- ii. Gevra Project has been producing and dispatching 35 MT in silo/belt, rail/road method, e-auction.
- iii. The additional 5.0 MT production will be done by surface miner and that there is no change in method of mining. And land use pattern.
- iv. The PP has informed that orders have been placed for 2 no 4000 tonne capacity silo and a cross country belt conveyor for which the construction has been started. Construction schedule of cross country conveyor and silos for loading in railway wagon in the present Warf loading siding to be submitted to the MOEF for record.
- v. The GM and the Director (Tech) have confirmed that the construction has started from August, 2013 and shall be completed by August, 2015

4. This is a violation case. The proponent has exceeded the production limit. As per the Office Memorandum dated 12.12.2012 and 27th June, 2013 issued by the Ministry of Environment and Forests with regard to the consideration of proposals for ToR/Environment Clearance/CRZ clearance involving violation of the Environment (Protection) Act, 1986/EIA notification, 2006/CRZ notification, 2011, the Environmental Clearance will be granted after the written commitment in the form of a formal resolution by the Board of Directors submitted to the MoEF to ensure that violations will not be repeated and the State Government concerned initiates credible action on the violation by invoking powers under Section 19 of the Environment (Protection) Act, 1986 for taking legal action under section 15 of the Act for the period for which the violation has taken place and evidence provided to the MoEF of the action taken. As regards credible action, Chhattisgarh Environment Conservation Board has filed criminal complaints under sections 15 & 17 of the Environment (Protection) Act, 1986 (Case No. 1217/2007) and under the Water (Prevention and Control of Pollution) Act, 1974 & Air (Prevention and Control of Pollution) Act, 1981 (Case no. 25/2009) against the collieries for operating with excess production. The Proponent has also has informed, vide its e-mail dated 19.11.2013 that in another case (Case No. 613/2007) which was filed by Chhattisgarh Environment Conservation Board in the High Court of Bilaspur, wherein order was issued in favor of SECL. The proponent has further stated that, the production in case of Gevra OCP during last three financial years i.e. after obtaining EC on 3rd June 2009 has been restricted to 35.00 MTY and therefore, a fresh Board resolution is not required.

5. The proposal was considered in the 2nd EAC meeting held on 3rd -4th October, 2013 and recommended for granting Environmental Clearance. The Committee after deliberation and with the assurance from the proponent with regard to the compliance, has recommended and in accordance with the OM no. J-11015/30/2004-IA.II (M) dated 19 December, 2012 for expansion of production by 5 MTPA i.e. 40 MTPA only. The Ministry of Environment & Forests has examined the application in accordance with the EIA Notification 2006 and under the provisions thereof, hereby recommends for environmental clearance for the above-mentioned **Expansion (under 7(ii) of EIA Notification 2006) of Gevra OCP project [from 35 MTPA to 40 MTPA in ML area of 4058.146 ha] of M/s South Eastern Coalfields Limited, dist. Korba, Chhattisgarh - (Latitude; 20°18'00" and 22°21'42" North; Longitude; 82°32'20" and 82°39'30" East), under the provisions of the Environmental Impact**

EC_Gevra Expansion



Attested

[Signature]
Advocate/Notary
Korba, Dist. Korba, Chhattisgarh

Assessment Notification, 2006 and amendments thereto and Circulars issued thereon and subject to the compliance of the following specific and general conditions:

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. 5.0 MTPA coal will be disbursed to NTPC power plant through existing Silo and MGR system to meet the extra demand of NTPC and there will be no road transportation of coal.
- iii. Entire 40 MTPA of coal to be transported to be by rail and/or by closed conveyor system. No Coal to be transported by road as is required under the OM No. J-11015/30/2004.IA.II dated 19th December, 2012.
- iv. Gevra Project has been producing and dispatching 35 MT in silo/belt, rail/road method, e-auction.
- v. The additional 5.0 MT production will be done by surface miner and that there is no change in method of mining. And land use pattern.
- vi. The proponent informed that orders have been placed for 2 no 4000 tonne capacity silo and a cross country belt conveyor for which the construction has been started. Therefore, construction schedule of cross country conveyor and silos for loading in railway wagon in the present Warf loading siding to be submitted to the MOEF for record with a copy to its Regional Office.
- vii. The GM and the Director (Tech) have confirmed that the construction has started from August, 2013 and shall be completed by August, 2015
- viii. The coal transportation is still being continued by road. The EC letter no. J-11015/484/2007-IA.II (M) dated 03.06.2009 had stipulated that transportation of coal shall be by done by closed conveyor belt and that the loading by silo system which shall be in place within 18 months from the date of the issuance of the EC. The Committee has noted that inordinate delay has taken place in this regard and desired that the proponent should complete this activity within 18 months. The proponent has assured to complete this activity within the stipulated time frame.
- ix. Keeping in view that Gevra is one of the large OC mines, the Committee advised the proponent to integrate the present management of OBD with the future management plan in such a way that there would be minimum area under external OBD and internal dump be backfilled upto ground level and that there would be minimum area under void with depth below 40 meter.
- x. The CSR cost should be Rs 5 per Tonnes of Coal produced which should be adjusted as per the annual inflation.
- xi. The embankment constructed along the river boundary shall be of suitable dimensions and critical patches shall 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.
- xii. There shall be no overflow of OB into the river Hasdeo and Ahiran river and Kholar nalla and other first order streamlets and into the agricultural fields and massive plantation of native species shall be taken up in the area between the river and the project.
- xiii. OB shall be stacked at two earmarked external OB dumpsite(s) only. The ultimate slope of the dump shall not exceed 28°. Monitoring and management of existing reclaimed dumpsites shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and the concerned Regional Office on yearly basis.
- xiv. Catch drains and siltation ponds of appropriate size shall be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected shall be utilised for watering the mine area, roads, green belt development, etc. The drains shall be regularly desilted and maintained properly. Garland drains (size, gradient and length) and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum

Attested

Kshari Advocate/Notary
Hardi Bazar, Jharkhand

- discharge in the area adjoining the mine site. Sump capacity shall also provide adequate retention period to allow proper settling of silt material.
- xv. Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data.
 - xvi. Crushers at the CHP of adequate capacity for the expansion project shall be operated with high efficiency bag filters, water sprinkling system shall be provided to check fugitive emissions from crushing operations, conveyor system, haulage roads, transfer points, etc.
 - xvii. Drills shall be wet operated.
 - xviii. The project authorities shall undertake regular repairing and tarring of roads used for mineral transportation. A 3-tier green belt comprising of a mix of native species shall be developed all along the major approach roads,
 - xix. Controlled blasting shall be practiced with use of delay detonators and only during daytime. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders shall be implemented.
 - xx. A Progressive afforestation plan shall be implemented covering an area of 2438.672 ha at the end of mining, which includes reclaimed external OB dump (480 ha), internal dump (1378 ha) and Green belt (5.67 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.
 - xxi. An estimated 1267 Mm³ of OB will be generated during the entire life of the mine. Out of which 147.60 Mm³ of OB will be dumped in seven external OB Dump in an earmarked area covering 480 ha of land. 1119.40 Mm³ of OB will be dumped eight internal OB dump in embankment covering an area of 1378 ha. The maximum height of external OB dump for hard OB will not exceed 90 m and that for soft OB shall not exceed 60 m. 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 MOEF and its Regional Office on yearly basis.
 - xxii. The proponent should prepare restoration and reclamation plan for the degraded area. The land be used in a productive and sustainable manner.
 - xxiii. Compensatory Ecological & Restoration of waste land, other degraded land and OB dumps in lieu of breaking open the land be carried out.
 - xxiv. The mining should be phased out in sustainable manner. No extra over burden dumps are permitted.
 - xxv. Of the total quarry area of 2037.250 ha, the backfilled quarry area of 1378.ha shall be reclaimed with plantation and a void of 659.250 ha which 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.
 - xxvi. A project specific R&R prepared for the project shall be implemented. R&R for a cost of not less than Rs. 95.8206 crores for the 2420 PAFs shall be completed within an agreed time schedule. The R&R shall be based on norms not less than that stipulated under the National R&R Policy/State Govt. whichever is higher.
 - xxvii. Land oustees shall be compensated as per the norms laid out R&R Policy of CIL or the National R&R Policy or R&R Policy of the State Government whichever is higher.
 - xxviii. No groundwater shall be used for mining operations.
 - xxix. Regular monitoring of groundwater level and quality shall be carried out by establishing a network of existing wells and construction of new peizometers. The monitoring for quantity shall be done four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons and for quality in May. Data thus collected shall be submitted to the

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Govt. of Chhattisgarh
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- Ministry of Environment & Forests and to the Central Pollution Control Board quarterly within one month of monitoring.
- xxx. The Company shall put up artificial groundwater recharge measures for augmentation of groundwater resource in case monitoring indicates a decline in water table. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.
- xxxi. Sewage treatment plant shall be installed in the existing colony. ETP shall also be provided for workshop and CHP wastewater.
- xxxii. Besides carrying out regular periodic health check-up of their workers, 10% 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.
- xxxiii. For monitoring land use pattern and for post mining land use, a time series of landuse maps, based on satellite imagery (on a scale of 1: 5000) of the core zone and buffer zone, from the start of the project until end of mine life shall be prepared once in 3 years (for any one particular season which is consistent in the time series), and the report submitted to MOEF and its Regional Office in the region.
- xxxiv. A detailed Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests within 6 months of grant of Environmental Clearance.
- xxxv. The project authorities shall in consultation with the Panchayats of the local villages and administration identify socio-economic and welfare measures under CSR to be carried out over the balance life of the mine.
- xxxvi. The commitment made by the Proponent to the issue raised during Public Hearing shall be implemented by the Proponent.
- xxxvii. Corporate Environment Responsibility:
- a) The Company shall have a well laid down Environment Policy approved by the Board of Directors.
 - b) The Environment Policy shall 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 shall be furnished.
 - d) To have proper checks and balances, the company shall 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.

B. General Conditions:

- i. No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment and Forests.
- ii. No change in the calendar plan of production for quantum of mineral coal shall be made.
- iii. Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for PM₁₀, PM_{2.5}, SO₂ and NO_x monitoring. 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. Data on ambient air quality (PM₁₀, PM_{2.5}, SO₂ and NO_x) and heavy metals such as Hg, As, Ni, Cd, Cr and other monitoring data shall be regularly submitted to the Ministry including its

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concerned Regional Office and to the State Pollution Control Board and the Central Pollution Control Board once in six months. Random verification of samples through analysis from independent laboratories recognised under the EPA rules, 1986 shall be furnished as part of compliance report.

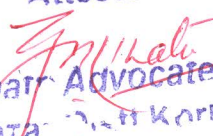
- v. Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with ear plugs/muffs.
- vi. Industrial wastewater (workshop and wastewater from the mine) shall be properly 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 before discharge. Oil and grease trap shall be installed before discharge of workshop effluents.
- vii. Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transporting the mineral shall be covered with tarpaulins and optimally loaded.
- viii. Monitoring of environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board and data got analysed through a laboratory recognised under EPA Rules, 1986.
- ix. Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.
- x. Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed and records maintained thereof. The quality of environment due to outsourcing and the health and safety issues of the outsourced manpower should be addressed by the company while outsourcing.
- xi. A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive, who will report directly to the Head of the company.
- xii. The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its concerned Regional Office.
- xiii. The Project authorities shall 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 seven days 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 the website of the ministry of Environment & Forests at <http://envfor.nic.in>.
- xiv. A copy of the environmental clearance letter shall be marked to concern Panchayat/Zila Parishad, Municipal Corporation or Urban local body and local NGO, if any, from whom any suggestion/representation has been received while processing the proposal. A copy of the clearance letter shall also be displayed on company's website.
- xv. A copy of the environmental clearance letter shall be shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industry Sector and Collector's Office/Tehsildar's Office for 30 days.
- xvi. The clearance letter shall be uploaded on the company's website. The compliance status of the stipulated environmental clearance conditions shall 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.
- xvii. The project proponent shall submit six monthly compliance reports on status of compliance of the stipulated environmental clearance conditions (both in hard copy and in e-mail) to the respective Regional Office of the Ministry, respective Zonal Office s of CPCB and the SPCB.

- xviii. The Regional Office of this Ministry located in the Region shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/ information/monitoring reports.
- xix. The Environmental statement for each financial year ending 31 March in For -V is mandated to be submitted by the project proponent 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 by e-mail.
6. The proponent shall abide by all the commitments and recommendations made in the EIA/EMP report so also during their presentation to the EAC.
7. The proponent is required to 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. M/s South Eastern Coalfields Ltd. to setup an Environment Audit cell with responsibility and accountability to ensure implementation of all the EC Conditions given earlier and being proposed now for the expansion of project.
9. The Ministry or any other competent authority may stipulate any further condition for environmental protection.
10. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract the provisions of the Environment (Protection) Act, 1986.
11. 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. The proponent 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.
12. The Environmental Clearance is subject to the outcome of the issuing EC subject to the outcome of the cases filed by Chhattisgarh Environment Conservation Board in the Court of Judicial Magistrate-I class.


(Dr. Manoranjan Hota)
Director

Copy to:

1. Secretary, Ministry of Coal, New Delhi.
2. Secretary, Department of Environment & Forests, Government of Chhattisgarh, Secretariat, Raipur.
3. Chief Conservator of Forests, Regional office (EZ), Ministry of Environment & Forests, E-2/240 Arera Colony, Bhopal 462016,
4. Member Secretary, Chhattisgarh State Environment Conservation Board, 1-Tilak Nagar, Shiv Mandir Chowk, Main Road, Avanti Vihar, Raipur-Chhattisgarh- 492001.
5. Member Secretary, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, New Delhi -110032.

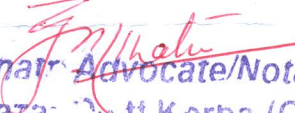

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- Member-Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi.
7. District Collector, Korba, Government of Chhattisgarh, New Delhi.
8. Monitoring File 9. Guard File 10. Record File. 11. Notice Board


(Dr. Manoranjan Hota)
Director



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S. S. Kshatri Advocate/Notary
Hardi Bazar, Korba (C.G.)