

No. J-11015/299/2008-IA.II (M)
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan,
CGO Complex, Lodhi Road,
New Delhi-110003
Dated: 19th February, 2014

To,

The General Manager
M/s South Eastern Coalfields Limited (SECL)
Seepat Road, Bilaspur
Chhattisgarh – 495006.

Sub. : Jampali OCP (3 MTPA in a ML area of 658.10 ha (out of which, 91.914 ha of forest land that falls in safety zone is not to be acquired); Latitude 22^o16'17" to 22^o17'50" North & Longitude 83^o16' 52" to 83^o19'26" East) of M/s South Eastern Coalfields Ltd. located in dist. Raigarh, Chhattisgarh – Environment Clearance - reg.

Sir:

This is with reference to letter no. 43011/47/2008-CPAM dated 03.07.2008 with the application for Terms of Reference (TOR) and this Ministry's letter dated 23.10.2008 granting TOR. Reference is also invited to the letter no SECL/BSP/ENVT./JAMPALI/2010/2334 dated 16.09.2010 and subsequent letter nos. dated 19.07.2011; 01.03.2012; 15.03.2012; 08.03.2013; 31.07.2013; and 19.12.2013 for environmental clearance on the above-mentioned subject.

2. The Ministry of Environment & Forests has considered the application. It is noted that the proposal is for grant of Environmental Clearance for **Jampali OCP (3 MTPA in a ML area of 658.10 ha; Latitude 22^o16'17" to 22^o17'50" North & Longitude 83^o16' 52" to 83^o19'26" East) of M/s South Eastern Coalfields Ltd. located in dist. Raigarh, Chhattisgarh.** The proposal was considered in the 26th -27th October, 2010; 29th -30th August 2011; 18th -19th June 2012 and reconsidered in the 9th EAC meeting held on 20th – 21st January, 2014. The proponent has informed that:

- i. It is an open cast coal mining project of M/s South Eastern Coalfields Ltd, to which Ministry accorded TOR vide letter no. J-11015/305/2008-IA.II (M) dated 23.10. 2008.
- ii. The latitude and longitude of the project are 22^o16'17" and 22^o17'50" North and 83^o16' 52" and 83^o19'26" East respectively.
- iii. The land usage of the project will be as follows:

Pre-mining:

S. No.	Type of Land use	Area in ha.
1.	Quarry area	398.00
2.	Ext dump	32.40
3.	Infrastructure	2.00
4.	Roads	2.60
5.	Township	22.50

6.	Safety zone	200.60
	Total	658.10

Post-mining:

S. No.	Type of Land use	Area in ha.
1.	Reclaimed dump	281.40
2.	Green belt	2.00
3.	Safety zone	103.19
4.	Water body	30.00
5.	Township	22.50
6.	Roads	2.60
7.	Agriculture area	218.40
	Total	658.10

Core area

S. No.	Type of Land use	Area in ha.
1.	Quarry area	398.00
2.	Ext dump	32.40
3.	Infrastructure	2.00
4.	Roads	2.60
5.	Township	22.50
6.	Safety zone	200.60
	Total	658.10

- iv. The total geological reserve is 50.889 million tons. The mineable reserve 31.30 MT, extractable reserve is 31.30 MT. The per cent of extraction would be 90%.
- v. The coal grades are Grade E to F.
- vi. There will be three Seams with thickness of Seams to be worked on will be 1.20m to 6.07m with the stripping Ratio (Av)- 4.35. Maximum thickness of Seams 6.07 m.
- vii. The average Gradient would be 2 to 5 degree.
- viii. The total estimated water requirement is 253m³/d & Peak demand 320m³/d. The level of ground water ranges Pre-monsoon water level vary from 3.20m to 9.45m (Average:6.32 m) Post-monsoon water level varies from 1.15 m to 4.50 m(Average: 2.82m).
- ix. There are two external OB dump with Quantity of 6.20 MCuM in an area of 32.40 ha with height of 30-45 m. and one internal dump with Quantity of 130 MCuM in an area of 278.61ha with height of 30-45 m.
- x. The final mine void would be in 30 ha with depth of 20 m. and the Total quarry area is 398 Ha. Backfilled quarry area of 384.60Ha shall be reclaimed with plantation.
- xi. The seasonal data for ambient air quality has been documented and all results at all stations are within prescribed limits.
- xii. The **life** of mine is 17 Years.
- xiii. **Transportation:** Coal transportation in pit to surface by trucks, Surface to Siding by trucks, siding to loading wagons will be rail / road.
- xiv. There is R & R involved. There are 114 PAFs for these production.
- xv. **Cost:** Total capital cost of the project is Rs. 47.72 Crore. CSR Cost Rs 5.00/tonne of production. R&R Cost 310.08 Lakhs. Environmental Management Cost is Rs. 355.55 lakhs.
- xvi. **Water body:** There are Kurket river & its tributary nallah, this river is located to the east of the block and flows from north to south.
- xvii. **Approvals:** Mining Plan was approved on 29.7.2008.

- xviii. **Board's Approval:** Project Report for 2.00MTY was approved by SECL Board on 19.01.2006. Further peak production for 3.00MTY was approved by SECL Board on 29.07.2008.
- xix. **Wildlife issues:** Comprehensive plan for conservation of flora & fauna of Rs 457.50 lakh has already been prepared & submitted to PCCF (wild life) CG Govt. Raipur through APCCF (land management) Raipur for approval.
- xx. **Forestry issues:** Total forest area involved for mining 251.646 ha. FC has been granted vide letter no. F.no-8-08/2013-FC dtd. 18th December, 2013 for 251.646 ha. Extent of forest land in the project is 343.56Ha. (91.914Ha of forest land falls in safety zone which is not to be acquired)
- xxi. Total **afforestation** plan shall be implemented covering an area of 384.60 ha at the end of mining. Green Belt over an area of 105 ha and Reclaimed internal dump would be 281.60ha. Density of tree plantation 2500 trees/ha of plants.
- xxii. There are no court cases/violation pending with the project proponent.
- xxiii. **Public Hearing:** Public hearing was held on 19.02.2010 at Jampali Village. The issues raised during the public hearing were regarding All the land holders should be given employment; Prevention of dust emission due to the mine should be properly controlled. Free Medical treatment should be provided by the SECL. Mine should be opened 2 to 3 km from the village so that the villagers get sufficient time for rehabilitation; No outsiders should be given employment. Land holders should be made shares holders in the company; Employment should also be given to persons who are not land holders; Tubewell, water tank, road, community hall, education facility and lighting should be provided in Kudumkhela village; The new rehabilitation policy of Chattisgarh should be followed; Compensation paid to the land holders should be at the rate of Rs. 20 Lakhs per hectare; plantation should be made ; Prevention for industrial accident and pollution; Developmental activities for poor section of society like medical education and social; The land owners have not divided the land between their families, so every member of the family and villagers who do not have land should get employment. The proponent has given assurances to address the issues raised during the Public Hearing.

3. The proponent has further submitted clarifications to the issues raised by certain organizations which include the following:

- i. The land use indicates that the project does not contain any reserve forest. Jampali is a Greenfield project and field survey for bio- diversity study (core and buffer zone) was carried out by M/s. Richardson & Cruddas (1972) Ltd, Chennai a Govt. of India undertaking. A Wild life plan (flora & fauna conservation plan) has been prepared & included in the EMP.
- ii. Separate provisions of fund & responsibility have been made for flora & fauna Conservation and are given in the EIA/EMP report.
- iii. Damage to ecology will be minimised, afforestation will be carried out by CG Rajya Van Vikas Nigam. It will include native species and other forest species also. The reclaimed dumps and water body will serve as faunal habitat.
- iv. Post mining 384.60 Ha of land will be returned as forest vis-a-vis 248.56 Ha of forest land required during mining. Also 218.40 Ha of land will be returned for agriculture & allied use against 245.80 Ha of agriculture land acquired for mining purpose.
- v. The proponent has submitted action plan on the direct and indirect impact of the mining that include providing LPG connection to employees so that domestic consumption of coal and wood is eliminated; a work plan of 20 years has been prepared at a cost of Rs 1.50 crore to reduce biotic pressure on nearby forest; saplings of fuel wood species will be

distributed free of cost to nearby villages throughout the operation phase of mine, i.e., for 20 years, so that their dependence on forest for fuel wood is reduced; conservation of water holes / water bodies; ambient air quality model has predicted that the impact of dust on nearby villages / area will be within the statutory limits of 200ug/m³; provision of mobile water sprinkler, fixed sprinklers; proposed rail corridor will also help in mitigation of levels of dust due to coal transportation.

- vi. The control of the dust emission due to open dumps has been fully planned in the EMP through proper dump stabilization i.e. stacking & stabilizing ;
- vii. As per original mine closure plan an external dump having a volume of 6.20 M.CuM over an area of 32.40 Ha was planned which was merged with the internal dump. The area of planned internal dump was 278.61 Ha and volume was 130.00 M.CuM. The height of composite dumps was planned between 30m - 45m.
- viii. Dumps will be re-handled to release land blocked by overburden dumps for agriculture.
- ix. The total estimated amount of OB to be re-handled for filling of void and creating space for agricultural and allied activities will be 73.0 M.CuM. The volume of void will reduce from 54.0 M.CuM to 6.0 M.CuM and its depth will reduce from 50 – 86 m to about 20 m.
 - x. Dumps are not located on the sides of Kurket River.
 - xi. Garland and catch drains are proposed to arrest silt load during monsoon.
- xii. It is a Greenfield project and therefore, the question of using huge quantity of water (0.189Kl/day) from 02 bore wells as mentioned in the complainant's letter seems to be not justified.
- xiii. The mine water after treatment will be utilized mostly for industrial use, dust suppression and raising plantation. Surplus mine water will be discharged into Kurket river after treatment. To protect surface water quality sedimentation pond, WETP & DETP are proposed in the project report.
- xiv. Ground water level has been monitored at 24 locations in study area. Only domestic demand will be met by tube wells and industrial demand will be met by treated mine water. Impact on mining expected to be within 300 meters from mine edge.
- xv. Jampali OC Mine is not an expansion project. It is a greenfield project. It is proposed to have 1.55 Km long and 3.75m wide haul road for to and fro movement of OB and coal inside the project, which will have no impact on accident rate outside the mine. A black-topped approach road of 2.5 KM length and 5m width is proposed for the project and will safely handle the coal traffic. For abatement of air pollution avenue plantation has been proposed along the roads. Four lane State highway (Gharghoda-Dharamjaygarh) has been proposed for widening, which will take care of coal traffic.
- xvi. R&R site has been finalized at Phagugram village about 5 km from the proposed project. Infrastructure will be provided in rehabilitated village that include Pond & Bore Wells; School Building; Dispensary Building & Panchayat Bhawan; Children Park etc.
- xvii. No diversion / modification of the Kurket river /existing drainage system at any stage has been proposed in the EMP. Garland drain of about 13 km along periphery of mine proposed to take care of surface runoff.
- xviii. As per revised mine closure plan (Scenario IV) the dumps will be re-handled to release land blocked by overburden dumps for agriculture. The volume of void will reduce from 54.0 M.CuM to 6.0 M.CuM and its depth will reduce from 50 – 86 m to about 20 m.

The proponent also further clarified that:

- xix. Public hearing was conducted on 19.02.2010 under the supervision of Regional Officer CECB, Raigarh and ADM, Raigarh in a peaceful & systematic manner where opportunity was given to all persons and all objections and suggestions raised were recorded.

- xx. The notice for public hearing was published in Times of India, New Delhi & three local Newspapers - Samachar Doot, Dainik Bhaskar and Dainik Navbharat on 18.01.2010. PH held on 19.02.2010. Copy of EMP given to all concerned Sarpanch / Secy & related officials. Public Hearing was conducted as per EIA Notification 2006.
- xxi. The notice for public hearing alongwith draft EMP was given by Regional officer, CECB to Sarpanch of Gram Panchayats of Fagugram, Pusalda, Kurmibhavana, Kurumkela, Kusumghat, Baroud, Jampali, Gharghodi, Porda, Singmouza, Nagdaraha, Pandripani, Dharamjaygarh by letter no. 1792 dtd. 18.01.2010. The notice was also published in Times of India, New Delhi & three local Newspapers- Samachar Doot, Dainik Bhaskar and Dainik Navbharat on 18.01.2010 for wide publication.
- xxii. Public hearing successfully held on 19.02.2010. Public hearing at local levels has verifications of law and order issues. SECL preferred hearing by CECB with co-operation of local district administration. No request was made to MoEF or any other agency for conducting Public hearing.
- xxiii. Land has been acquired under Coal Bearing Area (Acquisition & Development) Act, 1957, which is an act of Government of India. A legal opinion on acquisition & diversion of land was sought by SECL. The observation of Advocate Sri R.K.Gupta & Swati Raj Gupta, of High Court of Chhattisgarh, Bilaspur which advised that “ In my considered opinion, in view of the provisions contained in the Act of 1957 for SECL there is no legal impediment in proceeding ahead in the project as pointed out in the complaint dated 19.02.2010 and SECL should move ahead with the project completing all legal formalities in this regard”
- xxiv. A number of mines of SECL and other companies are planned in Raigarh district. These areas are deficient in Railway infrastructure. Ministry of Railways, State Govt . and other industries – both Private and Public Sector are jointly investing in a rail corridor connecting the proposed coal mines with Raigarh and Korba.
- xxv. The location of ambient air quality monitoring station is based upon the prevailing wind direction for the post monsoon season and the distance is restricted to 2.00 Kms , as it covers almost all the receptors likely to be affected by coal mining operations .
- xxvi. Six samples for water quality test have been taken as per the existing standards. The mine water after treatment will be utilized mostly for industrial use, dust suppression and raising plantation. Surplus mine water will be discharged into Kurket river after treatment.
- xxvii. To protect surface water quality sedimentation pond, WETP & DETP are proposed in the project report. Ground water level has been monitored at 24 locations in study area.
- xxviii. Occupational health survey (PME/ IME) is statutorily conducted for the employees as the mine starts. Further, health camps are regularly being organized in Jampali village.
- xxix. During implementation of R&R plan, 190 nos.of land oustees from the two villages, namely, Jampali and Singhmouza will be rehabilitated as per the Revised CIL Policy on R&R which includes all the important R&R issues pertaining to the project.
- xxx. The coal is not proposed for washing. However, Hg will be ascertained if washery is planned in future.
- xxxi. EIA Report of Jampali was prepared by M/s. Richardson & Cruddas (1972) Ltd, Chennai having a laboratory duly recognized by MoEF/CPCB & a Govt. of India undertaking company.
- xxxii. The project involves 190 numbers of land oustees from two villages namely Jampali and Singh Mouza.
- xxxiii. A total of 114 families will be resettled. The R&R package will be based upon CIL R & R and CG State R & R Policy. Survey of PAFs & assets completed in Sept 2010. R&R site identified at Phagugram village about 5km from project.

xxxiv. Area of R&R site is 14.7 Ha which will have infrastructure including Pond & Bore Wells for drinking water supply; School Building; Dispensary Building & Panchayat Bhawan; Children Park; Road, culverts and drains

4. The proposal was reconsidered in the Expert Appraisal Committee (EAC) (Thermal & Coal Mining) and recommended in its 9th EAC meeting held on 20th – 21st January, 2014 for granting Environmental Clearance. The Ministry of Environment & Forests hereby accords environmental clearance for the above-mentioned **Jampali OCP (3 MTPA in a ML area of 658.10 ha (out of which, 91.914 ha of forest land that falls in safety zone is not to be acquired); Latitude 22^o16'17" to 22^o17'50" North & Longitude 83^o16' 52" to 83^o19'26" East) of M/s South Eastern Coalfields Ltd. located in dist. Raigarh, Chhattisgarh** under the provisions of the Environment Impact Assessment Notification, 2006 and subsequent amendments thereto subject to the compliance of the terms and conditions mentioned below:

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. Out of the total ML area of 658.10 ha, forest land of 91.914 ha falls in safety zone which is not to be acquired).
- iii. No mining activity shall be carried out in forest land for which FC has not been granted.
- iv. The Coal transportation shall be done by the mechanically covered trucks for three years i.e. upto January, 2017 and thereafter it shall be by rail. The proposed railway siding which is three KM away should be brought near the mine.
- v. Mechanical bulk loading on railway wagons should be through CHP/ silo.
- vi. Post mining all external OB dumps will be re-handled to release land blocked by overburden dumps for agriculture into the mine void and final mine void be reduced from 54 McM to 6 McM and depth from 86 m to 20 m.
- vii. No diversion / modification of the Kurket river/existing drainage system at any stage
- viii. Ground water level should be monitored
- ix. Dust emission due to open dumps should be controlled.
- x. Land will be returned for agriculture & allied use after the mining is over.
- xi. Afforestation should be carried out that may include native species and other forest species also. The reclaimed dumps and water body will serve as faunal habitat.
- xii. Separate provisions of fund & responsibility should be made for flora & fauna Conservation
- xiii. Total of 114 families will be resettled. Project involves 190 numbers of land oustees from two villages namely Jampali and Singhmouza .
- xiv. Mercury monitoring will be carried out if washery is planned in future.
- xv. The PP should implement the R&R plan that include 190 nos.of land oustees from two villages, namely, Jampali and Singhmouza will be rehabilitated as per the Revised CIL Policy
- xvi. Surface water quality in the sedimentation pond should be protected,
- xvii. Occupational health survey (PME/ IME) should be carried out to check the health of the inhabitants and the workers of the mine.
- xviii. Proponent should expeditiously take up the matter with the Coal India to create an Environment Cadre for future employment in Coal India and its subsidiaries.
- xix. Wildlife Conservation Plan shall be prepared with duly approved by PCCF (Wildlife), State Govt of Chhattisgarh for its implementation. Adequate funds as directed by PCCF (Wildlife) shall be deposited with the State Government. Separate funds shall be earmarked for implementation of the various activities there under and the status thereof shall be regularly reported to this Ministry and the concerned MOEF Regional Office. The project authorities

- shall participate in a Regional Action Plan of the State Government for conservation of flora and fauna found within the study area.
- xx. Coal transportation in pit to surface by trucks, Surface to Siding by trucks, siding to loading wagons will be rail/road.
 - xxi. The production shall be within the same Mining Lease area.
 - xxii. The OB shall be completely re-handled at the end of the mining.
 - xxiii. Final mine void depth will not be more than 20 m. The void area will be converted into waterbody. The rest of the area will be back filled upto the ground level and covered with about a meter thick top soil and put to use.
 - xxiv. Garland drains be provided.
 - xxv. Appropriate embankment shall be provided along the side of the river/nallah flowing near or adjacent to the mine.
 - xxvi. The land after mining shall be brought back for agriculture purpose.
 - xxvii. Mine water should be treated for discharge into the lagoon. The quality of lagoon water shall be regularly monitored and mitigation measures taken.
 - xxviii. The CSR cost should be Rs 5 per Tonnes of Coal produced which should be adjusted as per the annual inflation.
 - xxix. Everybody in the core area should be provided with mask for protection against fugitive dust emissions.
 - xxx. Dust mask to be provided to everyone working in the mining area.
 - xxxi. The supervisory staff should be held personally responsible for ensuring compulsory regarding wearing of dust mask in the core area.
 - xxxii. People working in the core area should be periodically tested for the lung diseases and the burden of cost on account of working in the coal mine area.
 - xxxiii. The mining area should be grounded by green belt having thick closed thick canopy of the tree cover.
 - xxxiv. 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.
 - xxxv. There shall be no overflow of OB into the river and into the agricultural fields and massive plantation of native species shall be taken up in the area between the river and the project.
 - xxxvi. 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 its concerned Regional office on yearly basis.
 - xxxvii. 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 discharge in the area adjoining the mine site. Sump capacity shall also provide adequate retention period to allow proper settling of silt material.
 - xxxviii. 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.
 - xxxix. 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.
 - xl. Drills shall be wet operated.

- xli. 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,
- xlvi. 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.
- xlvi. A Progressive afforestation plan shall be implemented covering an area of 384.60 ha at the end of mining, which includes reclaimed Internal OB dump area (281.60 ha), and Green belt (105.192 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.
- xlvii. An estimated total 136.20 Mm³ of OB will be generated during the entire life of the mine. Out of which 6.20 Mm³ of OB will be dumped in two external OB Dumps in an earmarked area covering 32.40 ha of land. 130 Mm³ of will be one internal OB dump in covering an area of 278.61 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.
- xlviii. The proponent should prepare restoration and reclamation plan for the degraded area. The land be used in a productive and sustainable manner.
- xlix. Compensatory Ecological & Restoration of waste land, other degraded land and OB dumps in lieu of breaking open the land be carried out.
- l. The mining should be phased out in sustainable manner. No extra over burden dumps are permitted.
- li. No groundwater shall be used for mining operations.
- lii. Of the total quarry area of 398 ha **Error! Bookmark not defined.**, the backfilled quarry area of 384.60 ha shall be reclaimed with plantation and a void of 30 ha at a depth of 20 m 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.
 - 1. 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 Ministry of Environment & Forests and to the Central Pollution Control Board quarterly within one month of monitoring.
 - li. 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.
 - lii. Sewage treatment plant shall be installed in the existing colony. ETP shall also be provided for workshop and CHP wastewater.
 - liii. 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.

- liv. 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.
- lv. 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 concerned Regional office
- lvi. 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.
- lvii. 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.
- lviii. The commitment made by the Proponent to the issue raised during Public Hearing shall be implemented by the Proponent.
- lix. 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 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 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.
- 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.

5. The proponent shall abide by all the commitments and recommendations made in the EIA/EMP report so also during their presentation to the EAC.
6. 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.
7. The Proponent shall setup an Environment Audit cell with responsibility and accountability to ensure implementation of all the EC Conditions.
8. The Ministry or any other Competent Authority may stipulate any further condition for environmental protection.
9. 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.
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. 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.

(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.
6. Member-Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi.
7. Dr. R.K. Garg, Advisor, Coal India Limited, SCOPE Minar, Core-I, 4t Floor, Vikas Marg, Laxmi Nagar, New Delhi.
8. District Collector, Raigarh, Government of Chhattisgarh.
9. IG (Wild life), Ministry of Environment and Forests, New Delhi
10. Monitoring File 11. Guard File 12. Record File. 13. Notice Board

(Dr. Manoranjan Hota)
Director