

No.J-11015/487/2007-IA.II (M)
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan,
C.G.O. Complex, Lodhi Road
New Delhi -110510.
Dated: 12 February, 2013

To

The General Manager (W.B.P & Env.),
M/s South Eastern Coalfields Ltd.,
Bilaspur
Chhattisgarh.

Sub: Expansion of Dipka Opencast Project (25 MTY-normative & 30 MTY-Peak) in an area of 1999.293 ha) of M/s South Eastern Coalfields Limited (SECL) Tehsil Katghora, District Korba, Chhattisgarh (EC u/s 7.2).

Sir,

This is with reference to letter No. 43011/76/2007-CPAM dated 30.05.2007 forwarding the application for Terms of Reference (TOR) and this Ministry's letter dated 22.10.2007 granting TOR to the above-mentioned project and subsequent letter No. 43011/18/2012-CPAM of M/s CIL dated 09.08.2012 with application for environmental clearance based on TOR and subsequent letters of M/s SECL dated 06.10.2012, 05.12.2012 and SECL/DPK/GM/L&R/2013/26 dated 07.02.2013 on the above-mentioned subject. The Ministry of Environment & Forests has considered your application. Dipka opencast project is an expansion project for enhancement of production capacity from 25 MTPA to 33.75 MTPA in an existing area of 1999.417 ha. Out of the total coal, 60% coal goes to NTPC Seepat Power Plant and 40% to Electricity Boards. The project is located in Korba, which is one of the critically polluted areas in the country. Environmental Clearance from the Ministry for 25 MTY was accorded on 03-06-2009. The SECL Board approval has been obtained for securing environmental clearance for peak capacity i.e. 33.75 MTY on 24.08.2009. The Environment Clearance for a Peak production capacity of 33.75 MTPA, under clause 7(ii) of EIA Notification 2006, public hearing was exempted. No additional equipments for 33.75 MTPA are required. Only additional equipment for dust suppression and water pollution control are required. A large number of high-capacity mines are situated in the vicinity of the project e.g. operating mines are Gevra OCP, Kusmunda OCP. Of the total project area of **1999.417 ha**, **409.180 ha** is forestland, **1409.244 ha** is agricultural land, **180.993 ha** is **Govt. Land**.

LAND USE OF DIPKA EXP. PROJECT

Stages of mining	Activity	Types of land area (in Ha.)			Total Area (in Ha.)
		Forest	Tenancy/ Agricultural	Govt.	
Pre-mining Phase	Nil	409.180	1409.244	180.993	1999.417
As on 01-04-2012	Quarry area	28.000	441.560	13.740	483.300
	External OB dump	49.320	110.000	23.080	182.400
	Infrastructure, Workshop, Administrative	53.640	146.360	10.500	210.500

Dipka EC

	building etc.				
	Roads	0.000	4.000	0.000	4.000
	Green Belt	0.000	23.000	0.000	23.000
	Safety zone	22.331	85.200	22.959	130.490
Total		153.291	810.120	70.271	1033.690
Balance		255.889	599.124	110.722	965.727

There are a number of rivers and nalas such as Lilagarh nadi, Kholar nala, and channels flowing within and in the vicinity of the ML area and joining Hasdeo river which is at the distance of 8 km. Total mineable reserve is 617.00 MT and balance mineable reserve 479.512 MT. Average grade of coal is E grade (4000 – 4300 kcal/kg), ultimate working depth of the quarry is 250 m. The total projected manpower would be 2594. There are three OB Dumps with 50 to 60 mt height in combine area of 182.400 ha. The total volume of OB 615.00 Mm³ and the balance volume of OB would be 526.164 Mm³. The backfilling would begin from 16th year of expansion project. At the post mining stage, void in 222.08 ha area with 80 mt maximum depth will be left . Water table is in the range of 6.57-8.21 m bgl during pre-monsoon and 3.78-4.49m bgl during post-monsoon. Total Peak water requirement of expansion project is 4360 m³ /day, 3185 m³/day industrial and 1175 m³/day domestic. Of the total water demand, of the total water demand, 885 m³/d would be met from River Hasdeo, 650 m³/d is groundwater and 2825 m³/day is from mine water. Entire mineral transportation of 92465.75 TPD of coal from mine pit top to railway siding being established within the ML area is proposed to be by closed conveyors and thereafter by rail/MGR. Loading would be mechanised by Silo Loading Both conveyors and railway siding shall be established within 18 months of grant of the environmental clearance. Mechanized silo loading system shall be deployed for loading of coal at railway siding.. Open and mixed forest is found in the core and buffer zone. 1st stage Forest clearance obtained vide MOEF letter no.F.No.8-78/2006-FC, 20th October 2006 for 133.707 Ha Forest Land and (1st stage clearance obtained vide MOEF letter no.F.No.8-80/2006-FC, 20th October 2006 197.255 ha Forest Land. Final clearance obtained vide MOEF letter no.F.No.8-171/92-FC, 31/07/1995 for 33.84 ha and 1st stage clearance for renewal has been obtained vide letter no. F. No 8-8/2006-FC, 3rd March 2010. It is not proposed to modify the surface water drainage of the area. Open, mixed forest is found in the core and buffer zone. At present R&R of 10 villages i.e. Dipka, Chainpur, Beltikri, Jhingatpur, Jhabar, Sirki, Renki, Suvabhondi, Ratiza & Malgaon is under implementation. Of the total 1690 families, 1486 PAF shifted to R&R Colony, R&R of balance 204 PAF are being implemented. R&R cost for expansion project will be Rs. 5649.12 crores The earlier Public Hearing was conducted on 05.09.2008. Public Hearing is not applicable as application is under 7(ii) has been made. Mining Plan of the project was approved by the Ministry of Coal on 20.12.2006.EMP (Capital cost is Rs 816.98 Crores and Revenue cost would be Rs 2108.58 Lakhs. Rs 1.75 Crores for CSR for the year 2012-13 has been proposed and Rs. 5/T of coal produce which will be for life of the mine and with escalation factor as applicable. The balance life of mine is 19 years. Capital cost of the project is Rs. 1943.66 Crores.

There are no National Parks, Wildlife Sanctuary, Biosphere Reserves found in the 15 km buffer zone.

2. It was also informed that there are four cases pending against the project as mentioned below.

- (i) In 2006, a case was registered in Chhatishgarh High Court by Shri Amit Singh Walia against UOI and others regarding covering of transport vehicles by tarpaulin.
- (ii) In 2006, a contempt of Court was moved by the same party in Chhatishgarh High Court.
- (iii) In 2007, a case was filed by RO, CG Environment Protection Board against SECL, Gevra Area and CGM, Dipka Area regarding increase of production without EC. The case is pending in the Court of Judicial Magistrate Class-I, Korba

- (iv) In 2008, a case was filed by CG Environment Conservation Board, Korba against Sri Debashish Chatterjee, CGM, Dipka Area in the court of Additional Session Judge, Katghora regarding increase of production without EC.

The proponent mentioned that all the cases are pending in Courts mentioned above and decision are yet to come. However, at present due care is being exercised to ensure all the transport vehicles loaded with coal are covered with tarpaulin. The case at No.(iii) is against the coal production of the years 2001-02, 2002-03 and 2003-04 during which EC was for 10 MTY and production was more than that. The case at No (iv) is against the coal production for the years 2007-08 and 2008-09 during which EC was for 20 MTY and production was more than 20 MT.

The proponent has also mentioned that Dipka Expn Project was accorded EC for 25 MTY on 03.06.2009 and thereafter there has not been a single case registered against the project.

3. The proponent from M/S SECL, vide its letter no. SECL/DPK/GM/L&R/2013/26 dated 07.02.2013, has informed that the required forest area is 409.056 ha for which the FC has been obtained as per the following details:

Sl.No.	Forest Clearance Letter Nos. & Date	Area of Forest Land (In Ha)
1	F.No.8-171/92-FC dt:31/07/1995	33.84
2	F.No.8-8/2006-FC dt:03/03/2011	33.84 (The renewal of the above)
3.	F.No.8-78/2006-FC dt:20/10/2006	148.866
4	F.No.8-80/2006-FC dt:20/10/2006	206.638
5	No. 8/6/591/98-FCW/78 dt: 11/01/2001	16.794
6		2.918
	Total	409.056

The total land requirement as per the EMP was 409.180 ha. However, keeping the forest land at 409.056 ha, the proponent, vide its letter no. no. SECL/DPK/GM/L&R/2013/28 dated 08.02.2013 has indicated the revised land usage plan as per the following:

i. Forest land:	409.056 ha
ii. Tenancy/Agricultural land:	1409.244 ha
iii. Govt. Land:	180.993 ha
Total:	1999.293 ha

4. This is a violation case. As per the Office Memorandum dated 12.12.2012, 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. In this case, the Board's resolution has been received. The proponent has submitted the Board's resolution and a copy of evidence that the Chhatisgarh Environment Conservation Board has filed a case in the Court of First Class Judicial Magistrate.

5. The proposal was considered in the Expert Appraisal Committee (EAC) (Thermal & Coal Mining) and recommended in its 57th meeting held on 17-18 September, 2012 for granting Environmental

Clearance. Ministry of Environment & Forests has considered the proposal in the light of the OM dated 19th December, 2012 prescribing guidelines for granting EC for expansion of coal mining projects involving one time production capacity expansion upto 25% in the existing operation which, inter alia, mentions that “25% expansion in production capacity is subject to a ceiling of 2 MTPA of additional production where the transportation of the additional production is proposed by road and of 5 MTPA of additional production if such transportation is proposed by means of a conveyor and/or rail transport”. The mode of transport of coal by the proponent is by conveyor and rail. Therefore, Ministry of Environment & Forests hereby accords environmental clearance for the abovementioned Dipka Opencast coalmine project of M/s South Eastern Coalfields Ltd. for expansion in production of 25 MTY (normative) & 30.00 MTY (Peak) in total project area of 1999.293 ha.

A. Specific Conditions:

- i. Mining shall be carried out as per statuette at a safe distance from the surface water bodies flowing in and near the Mine Lease/ project area.
- ii. Entire mineral transportation from coal mine pit top to railway siding being established within the project area shall be by closed conveyors only and from there by rail/MGR to consumers. Both conveyors and railway siding shall be established within 18 months of grant of the environmental clearance. Mechanised Silo Loading System shall be deployed for loading of coal at the siding.
- iii. Top soil shall be stored in the earmarked 5 ha area and used for green belt development and for plantation/reclamation.
- iv. OB shall be stacked at the earmarked external OB dump site of 182.4 ha within ML area for the opencast operations of a maximum height of consisting of benches of 30m each. The ultimate slope of the dump shall not exceed 28°. Monitoring and management of existing reclaimed dumpsites including slope stability shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and its Regional office located at Bhopal on a yearly basis.
- v. Garland drains (size, gradient and length) around the safety areas such as mine shaft and low lying areas and sump capacity shall be designed keeping 50% safety margin over an above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. Sump capacity shall also be provided adequate retention period to allow proper settling of silt material.
- vi. 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.
- vii. 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.
- viii. Crushers at the CHP shall be operated with high efficiency bag filters/water sprinkling system shall be provided to check fugitive emissions from crushing operations, conveyor system which shall be closed, haulage roads, transfer points, etc.

- ix. Drills shall be wet operated only.
- x. 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.
- xi. An afforestation plan covering an area not less than 1009 ha shall be implemented, which includes backfilled area (780 ha) and ext. OB dump (182.4 ha), along ML boundary, green belt (23 ha), along roads, infrastructure, safety zone, undisturbed/vacant land by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha. An area of 723.544 ha shall be restored for agricultural/grazing at the post mining stage.
- xii. Of the total 1002.53 ha of the quarry area, an area of 780 ha of excavated area shall be reclaimed 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. The balance 222.054 ha of decoaled the void with 80 mt maximum depth left for further expansion in the dip-side shall be converted into a water reservoir, shall be gently sloped and the upper benches of the reservoir shall be stabilised with plantation and the periphery of the reservoir fenced.
- xiii. A Programme for conservation of the wildlife particularly the rare and endangered species/Schedule-I fauna and endangered flora and species of medicinal importance found in the study area shall be formulated and implemented in consultation with the Forest and Wildlife Departments in 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 MOEF Regional Office, Bhopal. The project authorities shall participate in a Regional Action Plan o the State Government for conservation o flora and fauna found within the study area.
- xiv. A detailed ground water monitoring action plan (along with budgetary provisions) for monitoring groundwater quality and level in consultation with the Central/State Ground Water Board be prepared and implemented. 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.
- xv. A Plan for water conservation and recharge measures of ground water along with budgetary provisions be prepared and implemented in consultation with the Central/State Ground Water Board to mitigate the adverse impact of mining which may lead to depletion of water levels in the area. The Company shall put up artificial groundwater recharge measures for augmentation of groundwater resource in case monitoring of groundwater levels indicate decline of water table. Any additional water requirement for mining operation shall be met from rainwater/recycling of water only. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.
- xvi. ETP shall also be provided for treatment of effluents from workshop, CHP (360m³/day) and an STP shall be provided for treating wastewater (288 m³/day) from the township and the treated effluents shall be used for green belt development. An estimated 2600 m³/day of the total 6852

m³/day of wastewater generated from the mine would be treated and recycled for mine operations and the balance m³/d of wastewater and mine water discharge (peak- 4252 m³/day) shall be treated to prescribed standards before discharge into the surface waters/agricultural use.

- xvii. 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 agency such as NIOH, Ahmedabad within a period of one year and the results reported to this Ministry and to DGMS.
- xviii. 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 at Bhopal.
- xix. R&R shall be not less than the norms prescribed in National R & R Policy 2007 and shall be implemented within a specified agreed time schedule. The time-frame for providing employment to all the 1690 PAPs shall be compressed and details submitted to MOEF for record.
- xx. A detailed Plan for CSR with specific budgetary allocation Rs 4 Crore (capital and revenue) for various skill development and alternate livelihood programmes and schemes and implemented through establishment of cooperatives and SHGs. CSR activities shall not overlap for the villages falling in the study area of the coal mine projects located in the study area. Costs for CSR would have a capital expenditure of not less than Rs 1 crore and Rs 1.75 Crores for CSR for the year 2012-13 has been proposed and Rs. 5/T of coal produce which will be for balance life of the mine and with escalation factor as applicable. Tribal Development Plan for the tribals shall be prepared as part of CSR. A detailed pre-project survey be carried on the socio-economic status of the local communities living in the villages near the project area before start of the mining operation based on a scientific methodology based on UNDP Human Development Index and monitoring the impact of project on the socio-economic and human development of the local communities, which shall be used as a base-line data for monitoring the progress of the status of human and socio-economic development in the area during and after the project life which is reflected in their Annual Report of the company and is also furnished as part of the Monitoring Report submitted to MOEF.
- xxi. A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests, five year before mine closure for approval. Habitat Restoration Plan of the mine area shall be carried out using a mix of native species found in the original ecosystem, which were conserved in-situ and ex-situ in an identified area within the lease for reintroduction in the mine during mine reclamation and at the post mining stage for habitat restoration.

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 including excavation, quantum of mineral coal and waste 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 monitoring PM₁₀, PM_{2.5}, SO₂ and NO_x and heavy metals such as Hg, Pb, Cr,

As, etc. 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.

- (iv) Data on ambient air quality (PM₁₀, PM_{2.5}, SO₂, NO_x and heavy metals such as Hg, Pb, Cr, As, etc.) shall be regularly submitted to the Ministry including its Regional Office and to the State Pollution Control Board and the Central Pollution Control Board once in six months.
- (v) Fugitive dust emissions (PM₁₀, PM_{2.5}, and heavy metals such as Hg, Pb, Cr, As, etc) from all the sources shall be controlled regularly monitored and data recorded properly. Water spraying arrangement on haul roads, wagon loading, dumper trucks (loading and unloading) points shall be provided and properly maintained.
- (vi) 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.
- (vii) 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.
- (viii) Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transporting the mineral shall be covered with tarpaulins and optimally loaded.
- (ix) Environmental laboratory shall be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board.
- (x) 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. 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.
- (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 Regional Office at Bhopal.
- (xiii) The Regional Office of this Ministry located at Bhopal 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.
- (xiv) A copy of the will be marked to concerned Panchayat/local NGO, if any, from whom any suggestion/representation has been received while processing the proposal.
- (xv) State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector's Office/Tehsildar's Office for 30 days.

(xvi) 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>. The compliance status shall also be uploaded by the project authorities in their website and regularly updated at least once in six months so as to bring the same in the public domain. The monitoring data of environmental parameters (air, water, soil and noise) shall also be displayed at the entrance of the project premises and mines office and in corporate office and also in their website.

6. The Ministry or any other competent authority may stipulate any further condition for environmental protection.

7. 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.

8. 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.

9. The Environmental Clearance is subject to the outcome of the case filed by the Chhattisgarh Environment Conservation Board in the Court of First Class Judicial Magistrate.

(Dr. Manoranjan Hota)
Director

Copy to:

1. The Secretary, Ministry of Coal, New Delhi.
2. DG (F) and Special Secretary, Ministry of Environment and Forests, New Delhi.
3. Secretary, Department of Environment & Forests, Government of Chhattisgarh, Secretariat, Raipur.
4. Principal Chief Conservator of Forests and CWLW, Govt. of Chhattisgarh, Raipur.
5. Chief Conservator of Forests, Regional office (EZ), Ministry of Environment & Forests, E-2/240 Arera Colony, Bhopal – 462016.
6. Chairman, Chhattisgarh State Environment Conservation Board, 1-Tilak Nagar, Shiv Mandir Chowk, Main Road, Avanti Vihar, RAIPUR-Chhattisgarh – 492001.
7. Chairman, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, New Delhi -110032.
8. Member-Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi.
9. District Collector, Korba, Government of Chhattisgarh, New Delhi.
10. Monitoring File 10. Guard File 11. Record File.

(Dr. Manoranjan Hota)
Director