

No.J-11015/175/2006-IA.II(M)
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan,
C.G.O.Complex, Lodi Road,
New Delhi -110003.

Dated: 17th October 2006

To
Head of Department Env./CE(Civil),
Environment Department,
M/s Western Coalfields Ltd.,
Coal Estate, Civil Lines,
NAGPUR - 440001.

Sub: Yekona-I Opencast Coal Mine Project (0.40 MTPA.) of M/s Western Coalfields Ltd. (WCL), located near village Yekona, Tehsil Warora, District Chandrapur, Maharashtra- Environmental clearance - reg.

Sir,

This has reference to letter No. 43011/76/2006-CPAM dated 30.05.2006 forwarding your application and your letter dated 05.07.2006 on the above-mentioned subject. The Ministry of Environment & Forests has considered your application. **It has been noted that the application is for environmental clearance for opening a new mine - Yekona-I Opencast Coal Mine Project. The total lease area is 265.50 ha.** Of the total lease area, 251.81 ha is agricultural land and 13.69 ha is Govt. land. No forestland is involved. Of the total lease area, 69.80ha is area for excavation, 48 ha is for OB dumps, 13 ha is for infrastructure including roads, 20 ha is for green belt, 8.50 ha is for embankment and 5 ha is garland drain, 52 ha is safety zone and 49.20 ha is rationalisation area. There area no National Parks, Wildlife Sanctuary, Biosphere Reserves found in the 10 km buffer zone. Site clearance granted on 08.06.2005. The area is drained by Wardha River which flows at a distance of 3km from the mine lease. The project does not involve modification of the natural drainage. However an embankment is proposed to be constructed along the river side. No R&R is involved. Mining is opencast by semi-mechanised method. **The rated capacity of the mine is from 0.40 million tonnes per annum (MTPA) of coal production.** Mineral transportation of **1212 TPD** of coal is by road by about 250 trucks per day. Ultimate working depth of the mine is 90m below ground level (bgl).. Water table is in the range of 3-10m bgl in the core zone and 1-12m bgl in the buffer zone. Mining will intersect water table. Average water requirement is 155 m³/d, which is met from groundwater (95m³/d) and from mine pit water (60m³/d).. An estimated 29.86 Mm³ of OB will be generated over the life of mine of which 12.91 Mm³ (43.23%) of OB will be backfilled and the balance would be dumped in one external dump. Backfilling will begin from the 8th year onwards. Public Hearing was held 27.10.2005. NOC has been obtained on 13.03.2006. Life of the mine at the rated capacity is 15 years. The project has been approved by M/s WCL on 28.12.2004. The capital cost of the project is **Rs. 4607.25 lakhs.**

2. The Ministry of Environment & forests hereby accords environmental clearance for the above-mentioned **Yekona-I Opencast Coal Mine Project of M/s WCL for production of coal of 0.40 MTPA rated capacity in a lease area of 265.50 ha** under the provisions of the Environmental Impact Assessment Notification, 2006 subject to the compliance of the terms and conditions mentioned below:

A. Specific Conditions

- (i) All the conditions stipulated by SPCB in their NOC shall be effectively implemented.

- (ii) Mining shall be carried out as per statuette at a safe distance from the river and nallah flowing adjacent to the lease boundary. The embankment constructed along the boundary with the river shall be of suitable dimensions and stabilised with plantation to withstand the peak water flow and prevent mine inundation.
- (iii) Diversion of the PWD road passing through the ML shall be made with the approval of State Government before start of mining operations. Alternate roads shall be made available by the project authorities before diversion of the roads to Chirur village and to Yekona village which are also being diverted within the lease area.
- (iv) Top soil should be stacked properly with proper slope at earmarked site(s) and should not be kept active and shall be used for reclamation and development of greenbelt.
- (iii) OB should be stacked at earmarked external OB dumpsite(s) within ML area and shall be a maximum height of 60m only and consist of benches of 10 to 15 m each. The ultimate slope of the dump shall not exceed 28°. Monitoring and management of existing reclaimed dumpsites should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests and its Regional office located at Bhopal on yearly basis.
- (iv) Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected should be utilised for watering the mine area, roads, green belt development, etc. The drains should be regularly desilted and maintained properly.
Garland drains (size, gradient and length) and sump capacity should 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 should also provided adequate retention period to allow proper settling of silt material.
- (v) Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation should be based on the rainfall data.
- (vi) Crushers at the CHP should be operated with high efficiency bag filters, water sprinkling system should be provided to check fugitive emissions from crushing operations, conveyor system, haulage roads, transfer points, etc.
- (vii) Drills should be wet operated only.
- (vii) Controlled blasting should 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 should be implemented.
- (viii) A progressive afforestation plan shall be implemented to cover a total area of 88 ha which includes reclaimed external OB dump (48 ha), backfilled area (16 ha) along ML boundary (5 ha), green belt and along infrastructure & roads (20 ha), embankment (4 ha), vacant land and in township located outside the lease by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.
- (ix) Of the excavated area, an area of 16 ha shall be backfilled and reclaimed with plantation and the balance 53.80 ha which is being converted into a water reservoir shall be protected by peripheral fencing. The upper benches of the void shall be gently sloped and shall be stabilised by plantation/afforestation by planting native plant species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.

- (x) The company shall obtain approval of CGWA/CGWB Regional Office for use of groundwater for mining operations.
- (xi) Regular monitoring of groundwater level and quality should be carried out by establishing a network of existing wells and construction of new piezometers. The monitoring for quantity should 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 should be submitted to the Ministry of Environment & Forests and to the Central Pollution Control Board quarterly within one month of monitoring.
- (xii) The Company shall put up artificial groundwater recharge measures for augmentation of groundwater resource. The project authorities should meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.
- (xiii) Sewage treatment plant should be installed in the new township/colony. ETP should also be provided for workshop and CHP wastewater.
- (xiv) 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 two years and the results reported to this Ministry and to DGMS.
- (xv) Digital processing of the entire lease area using remote sensing technique should be done regularly once in 3 years for monitoring land use pattern and report submitted to MOEF and its Regional office at Bhopal.
- (xvi) A Final Mine Closure Plan along with details of Corpus Fund should be submitted to the Ministry of Environment & Forests within 6 months for approval.
- (xvii) Consent to Operate shall be obtained before expanding mining operations.

B. General Conditions

- (i) No change in mining technology and scope of working should 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 should be made.
- (iii) Four ambient air quality monitoring stations should be established in the core zone as well as in the buffer zone for SPM, RPM, SO₂ and NO_x monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board.
- (iv) Fugitive dust emissions (SPM and RPM) from all the sources should be controlled regularly monitored and data recorded properly. Water spraying arrangement on haul roads, wagon loading, dump trucks (loading and unloading) points should be provided and properly maintained.
- (v) Data on ambient air quality (SPM, RPM, SO₂ and NO_x) should be regularly submitted to the Ministry including its Regional Office at Bhopal and to the State Pollution Control Board and the Central Pollution Control Board once in six months.

- (vi) Adequate measures should 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 should be provided with ear plugs/muffs.
 - (vii) Industrial wastewater (workshop and wastewater from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time before discharge. Oil and grease trap should be installed before discharge of workshop effluents.
 - (viii) Vehicular emissions should be kept under control and regularly monitored. Vehicles used for transporting the mineral should be covered with tarpaulins and optimally loaded.
 - (ix) Environmental laboratory should 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 should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.
Occupational health surveillance programme of the workers should be undertaken periodically to observe any contractions due to exposure to dust and to take corrective measures, if needed.
 - (xi) A separate environmental management cell with suitable qualified personnel should be set up under the control of a Senior Executive, who will report directly to the Head of the company.
 - (xii) The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year-wise expenditure should be reported to 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 should display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector's Office/Tehsildar's Office for 30 days.
 - (xvi) The Project authorities should advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within 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>.
3. The Ministry or any other competent authority may stipulate any further condition for environmental protection.
 4. 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.
 5. The above conditions will be enforced *inter-alia*, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981,

the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and Rules.

(Dr.T.Chandini)
Additional Director

Copy to:

1. Secretary, Ministry of Coal, New Delhi.
2. Secretary, Department of Environment, Government of Maharashtra, 15th Floor, New Admn. Bldg., Madam Cama Road, MUMBAI - 400032..
3. Chief Conservator of Forests, Regional office (EZ), Ministry of Environment & Forests, E-2/240 Arear Colony, Bhopal - 462016.
4. Chairman, Maharsashtra State Pollution Control Board, Kalapataru Point, 3rd & 4th Floors, Sion, Matunga Scheme Road No. 8, Opp. Cine Planet Cinema, Near Sion Circle, Sion (E), Mumbai - 400002.
5. Chairman, 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. Shri M.K. Shukla, CGM, Coal India Limited, SCOPE Minar, Core-I, 4th Floor, Vikas Marg, Laxminagar, New Delhi.
8. District Collector, Chandrapur, Government of Maharashtra.
9. EI Division, Ministry of Environment & Forests, New Delhi.
10. Monitoring File 10. Guard File 11. Record File

(Dr.T.Chandini)
Additional Director