

No.J-11015/78/2005-IA-II(M)  
Government of India  
Ministry of Environment & Forests

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

Dated: 24<sup>th</sup> May 2005

To  
Shri Prabhat Kumar,  
Chief General Manager (Civil/Env./L&R),  
M/s Western Coalfields Ltd.,  
Coal Estate, Civil Lines,  
Nagpur - 440001.

**Sub: Ghughus Opencast Expansion Project of M/s Western Coalfields Ltd. (WCL), near village Ghughus, Tehsil & District Chandrapur, Maharashtra -application for environmental clearance -reg.**

Sir,

This has reference to M/s Coal India Ltd.'s letter dated 03.03.2003 forwarding your application and subsequent letter dated 08.04.2005 on the above-mentioned subject. The Ministry of Environment and Forests has considered the application. It has been noted that the project is for expansion of **Ghughus Opencast Coal Mine** in terms of production capacity from 1.50 MTPA to 1.90 MTPA. The total mining lease area is **1020 ha** of which 484.95 ha is agricultural land, 104.05 ha is forestland, 431.0 ha is Govt. land. Of the total lease area, area for excavation is 232.60 ha, 84.11 ha is for OB dump, 94.08 ha is for infrastructure, 25.23 ha is for roads, 136.0 is for green belt, and 447.98 is 'others'. There are no National Parks, Wildlife Sanctuary, Biosphere Reserves found in the 10 km buffer zone. R&R involving one village is in progress. Mining will be opencast by mechanised method. Drilling and blasting are involved. Expansion of rated capacity of the mine is from **1.50 million tonnes per annum (MTPA) to 1.90 MTPA of coal production**. Mineral transportation of **5760 TPD** of coal shall be by use of 850 trucks per day. Present working depth is 90m below ground level (bgl) and ultimate working depth of mine is 140 m below ground level (bgl). Water table is in the range of 3-13 m bgl. Average water requirement is 7487 m<sup>3</sup>/d of which, 3610 m<sup>3</sup>/d is met from Wardha river and 3877 m<sup>3</sup>/d is met from mine discharge water. A total of 93.22 Mm<sup>3</sup> of OB has been excavated till date out of which 61.91 Mm<sup>3</sup> is dumped as external OB dump and for construction of embankment along ML boundary and 32.31 Mm<sup>3</sup> is backfilled. An estimated 52.94 Mm<sup>3</sup> of OB will be generated in the remaining life of mine. Backfilling is proposed at the end of decoaling. Public Hearing was held on 21.07.2004. NOC from Maharashtra State Pollution Control Board has been obtained on 28.02.2005. Remaining life of the mine at the rated capacity is 7 years. The project has been approved by M/s WCL on 23/28.03.2005. The capital cost of the project is **Rs. 6537.66 lakhs**.

2. The Ministry of Environment & Forests hereby accords environmental clearance for the above-mentioned **Ghughus Opencast Expansion Coal project** of M/s WCL for expansion in production of coal to **1.90 MTPA** in a total lease area of **1020 ha** under the provisions of Environmental Impact Assessment Notification, 1994 and subsequent amendments thereto subject to the compliance of the terms and conditions mentioned below:

**A. Specific Conditions**

- (i) No mining operations shall be undertaken in forestland until forestry clearance has been obtained.

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- (ii) The Embankment constructed for the part of mine lease boundary, which is located below the Wardha river should be of sufficient height over the HFL and width to protect the mine from inundation from peak flow from river.
- (iii) 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.
- (iv) OB should be stacked at earmarked external OB dumpsites only and shall be a maximum height of 60 m only and consist of two benches of 30m each. The ultimate slope of the dump shall not exceed 28°. The rehandling of the OB for backfilling will begin at the end of decoaling. Monitoring and management of rehabilitated dump sites 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.
- (v) Catch drains and siltation ponds of appropriate site 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 & 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 mines site.
- (vi) Pumps of adequate number and capacity should be provided which drain the mine water even during maximum rainfall.
- (vii) Dimension of the retaining wall at the toe of dumps and OB benches within the mine to check run-off and siltation should be based on the rainfall data.
- (viii) Drills should be wet operated or with dust extractors and operated only during daytime.
- (ix) Controlled blasting should be practiced with the 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.
- (x) Green belt development shall cover external OB dump of 90 ha, along ML boundary covering an area of 40 ha, roads, and in township outside the lease area 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.
- (xi) A Progressive Mine Closure Plan shall be implemented. Backfilling will start after the coal has been mined out and except for a void for future expansion, the higher benches of the void shall be terraced and plantation done to stabilise the slopes. Peripheral fencing shall be done along the excavated area.
- (xii) 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 the Central Ground Water Board, Regional Office quarterly within one month of monitoring.
- (xiii) 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 de-watering of the mine.
- (xiv) Sewage treatment plant should be installed in the existing colony.

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- (xv) Digital processing of the entire lease area using remote sensing techniques 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 5 years in advance of final mine closure for approval.
- (xvii) Consent to Operate should be obtained from the SPCB before expansion in production.

#### 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 RPM, SPM, SO<sub>2</sub>, NO<sub>x</sub>, 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) Data on ambient air quality (RPM, SPM, SO<sub>2</sub>, NO<sub>x</sub>) should be regularly submitted to the Ministry including its Regional Office at Bhopal and the State Pollution Control Board and the Central pollution Control Board once in six months.
- (v) Fugitive dust emissions from all the sources should be controlled regularly monitored and data recorded properly. Water spraying arrangement on haul roads, wagon loading, dump trucks (loading & unloading) points should be provided and properly maintained.
- (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, operations 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 19<sup>th</sup> May 1993 and 31<sup>st</sup> December 1993 or as amended from time to time. 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 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 the Ministry and its Regional Office located at Bhopal.
- (xiii) The Regional Office of this Ministry located at Bhopal shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/ information/monitoring reports.
- (xiv) A copy of the clearance letter will be marked to concerned Panchayat/local NGO, if any, from whom and 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 issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and may also be seen at web site 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 action under 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 & Mines, Department of Coal, Govt. of India, Shastri Bhawan, New Delhi.
2. Secretary, Environment Department, Government of Maharashtra, 15<sup>th</sup> Floor, New Admn. Bldg., Madam Cama Road, MUMBAI-400032.
3. Chief Conservator of Forests (Central), Ministry of Environment & Forests, Regional Office, E-2/240 Arera Colony, Bhopal-462 016.
4. Chairman, Central Pollution Control Board, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
5. Chairman, Maharashtra State Pollution Control Board, Kalapataru Point, 3<sup>rd</sup> & 4<sup>th</sup> Floor, Sion Matunga Scheme Road No.8, Opp.Cine Planet Cinema, Near Sion Circle, Sion (E), Mumbai - 400002.
6. Member Secretary, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001
7. Shri M.K. Shukla, CGM, Coal India Limited, SCOPE Minar, Core-I, 4<sup>th</sup> Floor, Vikas Marg, Laxminagar, New Delhi.
8. District Collector, Chandrapur, Government of Maharashtra.
9. EI Division, Ministry of Environment & Forests, EI Division, New Delhi.
10. Monitoring File. 11. Guard File. 12. Record File.