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No.J-11015/16/2003-IA-II(M)
Government of India
Ministry of Environment & Forests

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

Dated: 10th January 2005

To
General Manager (Env./WBP),
Western Coalfields Ltd.,
Coal Estate, Civil Lines,
NAGPUR - 440001.

Sub: Juna Kunada Opencast Project of M/s Western Coalfields Ltd. (WCL), in Juna Kunada village, Bhadravati Tehsil, Chandrapur District, Maharashtra - application for environmental clearance -reg.

Sir,

This has reference to Government of India, Ministry of Coal's letter No. 43011/7/2002-CPAM dated 19.11.2003 forwarding your application on the above-mentioned subject. The Ministry of Environment and Forests has considered the application. It is noted that the proposal is for opening a new opencast coal mine. The total lease area of **184.87 ha** consists of 171.49 ha of agricultural land and 13.38 ha is Government land. No forestland is involved. No ecologically sensitive areas exist within 10 km of mine site. Site clearance was granted on 05.01.2004. Of the lease area of 184.87 ha, 60 ha comprises of quarry area, 15.60 ha is for external OB dumps, 15.0 ha for infrastructure, 30.50 ha is for embankment, 31.88 ha is for green belt and 63.77 ha is for safety zone. Wardha river flows adjacent to lease boundary. R&R is not involved. Mining will be by opencast semi-mechanised method. Drilling and blasting are involved. The production capacity of the mine is **0.6 million tonnes per annum (MTPA) of coal production**. Mineral transportation of **1818 tonnes per day (TPD)** of coal shall be by use of 300 Tippers per day to Coal Handling Plant located in Chargaon OCP, 2-3 km from mine site. Ultimate working depth of mine is 150 m below ground level (bgl). Water table is in the range of 4.0m-15.0 m below ground level (bgl) during pre-monsoon and 1.0-8.0 m bgl (post-monsoon). An estimated 101 m³/d of water will meet the water requirements of the project, of which 50 m³/d will be met from existing Wardha river based water supply and the balance 50 m³/d will be from mine sump water. Total estimated topsoil and OB generation over the life of mine is 38.54 million. cu.m, of which an estimated 23.80 million. cu.m of OB will remain in external dump and 2.23 mill. m³ of OB will be used for construction of embankment and 12.51 mill. m³ will be backfilled into the void of adjacent Chargaon OCP from 3rd year onwards upto 10th year in a phased manner. The void of Juna-Kunada OCP covering an area of 60 ha will be converted into a water reservoir, if mining does not go to further depths beyond life of present project. Public Hearing was held on 11.05.1999. NOC from Maharashtra State Pollution Board has been obtained on 25.01.1999. Life of mine at the rated capacity of 0.6 MTPA is 13 years. The project has been approved by Western Coalfields Ltd. (CIL) on 27.03.2003. The capital cost of the project is **Rs. 2375.70 lakhs**.

2. The Ministry of Environment & Forests hereby accords environmental clearance for the above-mentioned **Juna Kunada Opencast Coal Project** of M/s Western Coalfields Ltd. for opening a new coal mine with a production capacity of **0.6 MTPA of coal** involving a lease area of **184.87 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) The production capacity of 0.6 MTPA shall begin only after obtaining Consent to Operate for this rated capacity from the State Pollution Control Board.
- (ii) The project proponent shall obtain a fresh environmental clearance to mine deeper than 150 m below ground level.
- (iii) Necessary clearance from the State Land Use Board (SLUB) shall be obtained for diversion of agricultural land for the project.
- (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.
- (v) OB should be stacked at earmarked external OB dumpsite only in an area of 15.60 ha and shall be a maximum height of 50 m only and consist of benches of 10-15 m each. The ultimate slope of the dump shall not exceed 28°. Rehandling of OB for backfilling shall begin at the end of 3rd year. 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.
- (vi) Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from top soil and OB 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. Sump capacity should also provide adequate retention period to allow proper settling of silt material.
 Plantation should be taken up for soil stabilisation along the slopes of the dump. Sedimentation pits should be constructed at the corners of the garland drains.
- (vii) Dimensions 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) 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, haulage roads, transfer points, etc.
- (ix) Drills should be wet operated or with dust extractors and operated only during daytime.

- (x) 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.
- (xi) The total area that shall be brought under green belt development is 109.87 ha which includes 15.60 ha of external OB dump, 30.50 ha area of embankment, areas along roads, along ML boundary, and undisturbed land covering an area of 63.77 ha 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.
- (xii) A Progressive Mine Closure Plan shall be implemented. Backfilling of the mined out area of Chargaon OCP shall commence from 3rd year onwards and reclaimed. The higher benches of the void of Juna-Kuna OCP shall be terraced and plantation done to stabilise the slopes. Peripheral fencing shall be done along the excavated area.
- (xiii) 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 water levels should be done at least 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.
- (xiv) 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.
- (xv) Land oustees shall be paid compensation as per State Government and CIL norms.
- (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.

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, SO₂, NO_x, and CO 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 SPCB.
- (iv) Data on ambient air quality (RPM, SPM, SO₂, NO_x) 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 19th May 1993 and 31st 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, Department of Coal, Govt. of India, Shastri Bhawan, New Delhi.
2. Secretary, Environment Department, Government of Maharashtra, 15th 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 Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar New Delhi - 110 032.
5. Chairman, Maharashtra State Pollution Control Board, Kalapataru Point, 3rd & 4th Floor, Sion Matunga Scheme Road No.8, Opp.Cine Planet Cinema, Near Sion Circle, Sion (E), Mumbai -400002.
6. Chairman, Central Ground Water Authority, Ministry of Water Resources, A-3, W-3 Curzon Road Barracks, Kasturba Gandhi Marg, New Delhi.
7. District Collector, Chandrapur, Government of Maharashtra, Nagpur.
8. Shri M.K. Shukla, CGM, Coal India Limited, Surya Kiran Building, Kasturba Gandhi Marg, New Delhi.
9. EI Division, Ministry of Environment and Forests, New Delhi.
10. Monitoring file. 11. Guard file. 12. Record file.