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No.J-1017/31/2001.IA.II (M)
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan,
C.G.O. Complex, Lodi Road,
New Delhi - 110 003

Dated the 19th May 2005

To

Director (Technical-P&P)
M/s Western Coalfields Limited
Coal Estate, Civil Lines,
NAGPUR-440 001
Maharashtra

Subject: Expansion of Bhatadi open cast coal mining project of M/s Western Coalfields Limited located in Village Bhatadi, Tehsil Bhadravati, District Chandrapur, Maharashtra - environmental clearance reg.

Sir,

This has reference to Ministry of Coal letter No.43011/30/2001-CPAM dated 23.10.2001 and your letters dated 07.12.2001, 04.01.2002, 02.11.2004, 24.01.2005 and 17.03.2005 on the subject mentioned above. The Ministry of Environment and Forests has examined the application. It has been noted that the proposal is for expansion of coal production from 0.25 MTY to 0.65 MTY and increase in lease area from 287.57 ha to 847.57 ha. Total lease area of the project is 847.57 ha, out of which 838.96 ha is an agricultural land and 8.61 ha is others Government land. No forestland is involved. Area proposed for excavation is 161.52 ha, 182.30 ha is kept for OB dumps including embankment, 10.90 ha for infrastructure, 8.45 ha for roads, 150 ha for green belt, 16.70 ha for township and 317.70 ha for miscellaneous uses, safety zone, embankment etc. Township is existing outside the mine lease area. No ecologically sensitive area such national park/sanctuary/biosphere reserve etc. reported within 10 km radius of the project. Mohari RF and Bhandak forest are in the buffer zone. 495 households from one village comprising population of 1500 people are in the core zone. Displacement of population is involved. Working is opencast by semi-mechanised method involving controlled blasting. The envisaged production capacity of the mine 0.65 MTY. Present working depth is 80 m bgl and ultimate working is 150 m bgl. Total water requirement for the project is 460 m³/day out of which 250 m³/day is mine site requirement, 10 m³/day for green belt and 200 m³/day is for domestic use. Source of water requirement is mine water (sump). Total OB generation is 110.786 Mm³ of which 64.323 Mm³ is dumped as an external OB dumps and 46.463 Mm³ will be used for backfilling in quarry void. NOC from the State Pollution Control Board obtained on 04.12.2000. Public hearing held on 22.01.2001. Project report approved on 03.08.1998 for the production capacity of 0.65 MTY. Capital cost of the project is Rs.9480.60 lakhs.

2. The Ministry of Environment and Forests hereby accords environmental clearance to the above mentioned coal mining project of M/s Western Coalfields Limited for production capacity of 0.65 MTY by opencast method involving total lease area of 847.57 ha under the provisions of the Environment Impact Assessment Notification, 1994 as amended on 04.05.1994 and 10.04.1997 subject to strict compliance of the terms and conditions mentioned below:

A. Specific conditions

- (i) The environmental clearance is subject to approval of the State Landus Department, Government of Maharashtra for diversion of agricultural land for non-agricultural use.
- (ii) Top soil should be stacked properly with proper slope at earmarked site(s) with adequate measures and should be used for reclamation and rehabilitation of mined out area.
- (iii) OB dumps should be stacked at earmarked dump site(s) only and should not be kept active for long period. Proper terracing of OB dump should be carried out so that the overall slope will come down to 28 degree. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests 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 utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted and maintained properly.

Garland drains of appropriate size should be constructed, to collect surface run-off from the OB and waste dump site(s) and taken to settling pond before discharge.
- (v) 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 rain fall data.
- (vi) Green belt should be raised in an area of 150.0 ha by planting the native species around the ML area, Coal Handling Plan, roads, OB dump sites etc. in consultation with the local DFO / Agriculture Department. The density of the trees should be around 2000 plants per ha.
- (vii) Mine discharge after proper settling should be made available for agricultural purpose through a properly developed distribution network . The project authorities should meet the water requirement of nearby village(s) in case the village wells go dry due to de-watering of the mine.
- (viii) The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.
- (ix) Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring should be carried out four times in a year - pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regularly to MOEF, Central Ground Water Authority and Regional Director central Ground water Board.

- (x) Permission from the competent authority should be obtained for drawal of water for domestic use.
- (xi) Appropriate mitigative measures should be taken to prevent pollution of Erai River in consultation with the State Pollution Control Board.
- (xii) Embankment of proper dimensions should be constructed to protect the area from flood water during rainy season.
- (xiii) Coal handling plant should be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.
- (xiv) Sewage treatment plant should be installed for the colony. ETP should also be provided for workshop and CHP wastewater.
- (xv) Consent to operate should be obtained from SPCB for the enhanced production.
- (xvi) Vehicular emissions should be kept under control and regularly monitored.
- (xvii) Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land use pattern and report submitted to MOEF and its regional office.
- (xviii) 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.
- (xix) Land oustees and land losers should be compensated as per the State Government norms and CIL Policy.

B. General conditions

- (i) No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & 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 & 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 State Pollution Control Board.
- (iv) Data on ambient air quality (RPM, SPM, SO₂, NO_x & CO) should be regularly submitted to the Ministry including its Regional office at Bhopal and the State Pollution Control Board / Central Pollution Control Board once in six months.
- (v) Drills should be wet operated or with dust extractors and controlled blasting should be practised.

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- (vi) Fugitive dust emissions from all the sources should be controlled regularly, monitored and data recorded properly. Water spraying arrangement on roads, wagon loading, dump trucks (loading & unloading) should be provided and properly maintained.
 - (vii) 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.
 - (viii) Industrial waste water (workshop and waste water 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.
 - (ix) Acid mine water, if any, has to be treated and disposed of after conforming to the standard prescribed by the competent authority.
 - (x) Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board.
 - (xi) 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 program of the workers should be undertaken periodically to observe any contraindications due to exposure to coal dust and take corrective measures, if needed.


- (xii) 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 Organization.
- (xiii) 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.
- (xiv) 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 officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
- (xv) A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom and suggestion / representation has been received while processing the proposal.
- (xvi) 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.

(xvii) 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 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 alter/modify the above conditions or stipulate any further condition in the interest of environment 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 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, Government of India, Shastri Bhawan, New Delhi
2. Secretary, Department of Environment, Government Maharashtra, Secretariat, Mumbai
3. Secretary, Department of Forests, Government of Maharashtra, Secretariat, Mumbai
4. Chief Conservator of Forests (Central), Ministry of Environment & Forests, Regional Office(WZ), E-2/240 Aera Colony, Bhopal-462 016.
5. Chairman, Central Pollution Control Board, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032
6. Chairman, Maharashtra Pollution Control Board, Shri Chhatrapati Shivaji Maharaj Municipal Market Building, 4th floor, Mata Ramabai Ambedkar Road, MUMBAI-400 001
7. Member Secretary, Central Ground Water Authority, A2, W3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.
8. District Collector Chandrapur District, Maharashtra.
9. Shri M.K.Shukla, Chief General Manager, Coal India Limited, 407/8, Surya Kiran, 19 Kasturba Gandhi Marg, New Delhi-110 001.
10. EI Division, Ministry of Environment & Forests, EI Division, New Delhi.