

No.J-11015/242/2008-IA.II(M)
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan,
C.G.O.Complex,
New Delhi -110510.

Dated: 17th July 2009

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

Sub: Gauri I & II Opencast (Amalgamated) Coal Mine Expansion Project (1.50 MTPA to 2.50 MTPA over a combined total ML area of 676.53 ha) of M/s Western Coalfields Ltd. (WCL), located in village Gauri, Tehsil Rajura, District Chandrapur, Maharashtra- environmental clearance - reg.

Sir,

This has reference to letter No. 43011/28/2009-CPAM dated 03.06.2008 of Ministry of Coal forwarding your application for environmental clearance under Section 7 (ii) of the EIA Notification 2006 and this Ministry's grant of TOR dated 26.08.2008 and your application dated 30.04.2009 and - mails dated 13.07.2009 on the above-mentioned subject. The Ministry of Environment & Forests has considered the application. It has been noted that the application is for environmental clearance u/s 7 (ii) of the EIA Notification 2006 for amalgamation of the two existing opencast coalmines - Gauri and Gauri II and expansion in production from 1.35 MTPA to 2.50 MTPA over a combined lease area of 676.53 ha. Environmental clearance was granted on 20.05.2005 for Gauri I OCP for 0.60 MTPA and ML area of 303 ha and Gauri II OCP and 0.75 MTPA rated capacity and ML area of 568 ha. The amalgamation of the two mines for the expansion project involves a reduced combined ML area from 871 ha to 676.53 ha. Of the ML area, 635.47 ha consist of agricultural land and 41.06 ha is wasteland. No forestland is involved. There are no National Parks, Wildlife Sanctuary, Biosphere Reserves found in the 15 km buffer zone. River Wardha flows alongside the mine at a distance of 7km. The mine is also in close proximity to Gauri Nala, divertal Chincholi Nala, and Pauri Nala which flow across the mine. An embankment of 29 ha and 6m above IIFL from the nalas has been already constructed in the existing project. The expansion project does not involve further modification of the natural drainage. The combined rated capacity of the amalgamated mines is 2.50 million tonnes per annum (MTPA) of coal production. During balance life of mine, area for excavation is 101.31 ha of the total quarry area of 223.31 ha, 81 ha of the total are of 186 ha for OB dumps, 28 ha is for embankment which has been stabilised by plantation, 34.17 ha is for infrastructure and roads, 79.60 ha is area or blasting, and 64.39 ha is area for rationalisation of which 60 ha is under plantation cover. Mining is opencast by mechanised method involving shovel-dumper. No new external OB dump is to be created in the expansion project. There is no change in mining technology, in the generation of total OB and dump area, or modalities of technical and biological reclamation of dumps. The expansion project also does not involve additional manpower, or equipment for expansion in production. Mineral transportation of 7575 TPD of coal is by rail. Ultimate working depth of the mine is 120m below ground level (bgl). Water table is in the range of 6.85-7.0 m bgl during pre-monsoon and 3-12 m bgl during post monsoon. Peak water requirement is 525 m³/d, which is met from mine pit water. No fresh source of water is proposed for use in the project operations. The total OB generation over the life of mine is 70.069 Mm³ of which 58.729 Mm³ is to be dumped externally in 60m high ext. OB dumps and 8.32 Mm³ partially backfilled and 3.02 Mm³ used for construction o embankment and the balance OB to be excavated is 36.65 Mm³ of which 14.65 Mm³ of OB would be dumped externally and 22 Mm³ of OB would be concurrently backfilled till end of mine life. A water body of 171.40 ha is to be created from the void left at the post mining stage. No R&R is involved. Balance life of the mine at 2.50 MTPA rated capacity is 6 years. Public Hearing was held on 20.07.2004 for the two Gauri and

G-I/II - 1

Gauri II projects for 0.60 MTPA and 0.75 MTPA individual rated capacity. The project has been approved by M/s WCL on 15.07.2008. The capital cost of the project is Rs. 1504.96 lakhs.

2. The Ministry of Environment & forests hereby accords environmental clearance for the above-mentioned Gauri I and Gauri-II (amalgamated) Opencast Coal Mine Expansion Project of M/s WCL for expansion in production of coal from 1.35 MTPA to 2.50 MTPA rated capacity in a combined lease area of 676.53 ha under section 7 (ii) of the Environmental Impact Assessment Notification, 2006 and subsequent amendments thereto subject to the compliance of the terms and conditions mentioned below:

A. Specific Conditions

- (i) No OB shall be dumped externally during the balance life of the expansion project. The ultimate slope of the dump shall not exceed 28°. Monitoring and management of existing reclaimed dumpsites 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 yearly basis.
- (ii) 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.
- (iii) 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.
- (iv) Crushers at the CHP of adequate capacity for the expansion project shall be operated with high efficiency bag filters, and mist spray water sprinkling system shall be provided to check fugitive emissions from crushing operations, conveyor system, haulage roads, transfer points, etc.
- (v) Drills shall be wet operated.
- (vi) The project authorities shall undertake regular repairing and tarring of roads used for mineral transportation. A 3-tier green belt comprising of a mix of native species shall be developed all along the major approach roads and internal roads, storage yards, transfer areas.
- (vii) 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.
- (viii) A progressive afforestation plan shall be implemented covering an area of 325.91 ha, which includes reclaimed external OB dump (186), backfilled area (51.91 ha), along ML boundary, along roads and infrastructure, embankment (28 ha) and within vacant land (60 ha) and in township located outside the lease by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha.
- (ix) Of the total quarry area of 223.31 ha, the backfilled area of 51.91 ha shall be reclaimed with plantation and a void of 171.40 ha which is proposed to be converted into a water body shall be gently sloped and the upper benches shall be terraced and stabilised 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.

G-I/II-2

- (x) No groundwater shall be used for mining operations.
- (xi) Regular monitoring of groundwater level and quality shall be carried out by establishing a network of existing wells and construction of new piezometers. 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.
- (xii) The Company shall put up artificial groundwater recharge measures for augmentation of groundwater resource in case monitoring indicates a decline in water table. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.
- (xiii) Sewage treatment plant of adequate capacity shall be installed in the existing colony. ETP shall also be provided for workshop and CHP wastewater.
- (xvi) 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.
- (xvii) For monitoring land use pattern and for post mining land use, a time series of land use 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.
- (xviii) A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests within six months from date of environmental clearance for approval.
- (xix) The project authorities shall in consultation with the panchayat of the local villages identify socio-economic and welfare measures under CSR to be carried out over the balance life of the mine.

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 SPM, RSPM, SO₂ and NO_x. 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. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, in SPM and RSPM etc. shall be carried out at least once in six months.
- (iv) Data on ambient air quality (SPM, RSPM, SO₂ and NO_x and heavy metals such as Hg, As, Ni, Cr, etc) shall 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

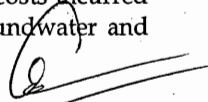
G-I/II-3

- months. Random verification of samples through analysis from independent laboratories recognised under the EP Rules, 1986 shall be furnished as part of the compliance report.
- (v) 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.
 - (vi) 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.
 - (vii) Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transportation of the mineral shall be covered with tarpaulins and optimally loaded.
 - (viii) Monitoring of environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board and data got analysed through a laboratory recognised under EP Rules, 1986.
 - (ix) 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.
 - (x) 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.
 - (xi) 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.
 - (xii) 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>.
 - (xiii) A copy of the environmental clearance letter shall be marked to concerned Panchayat/ Zila Parishad/Municipal Corporation or Urban Local Body/ local NGO, if any, from whom any suggestion/representation has been received while processing the proposal. A copy of the clearance letter shall also be displayed on the company's website.
 - (xiv) A copy of the clearance letter shall be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industry Centre and Collector's Office/Tehsildar's Office for 30 days.
 - (xv) The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions (both in hard copy and in e-mail) to the respective Regional Office of the MOEF, the respective Zonal offices of CPCB and the SPCB. The compliance status of the stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in the public domain. The monitoring data of environmental quality parameters (air,

G-I & II - 4

water, noise and soil) shall also be displayed at the entrance of the project premises and mines office and in corporate office and on the company's website.

- (xvi) 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.
- (xvii) The environmental statement for each financial year ending 31st March in Form-V is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be uploaded on the company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MOEF by E-mail.
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. 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.


(Dr. T. Chandini)
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 Area Colony, Bhopal - 462015.
4. Chairman, Maharashtra 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.

G-IRB-5