

BY SPEED POST

No. J-11015/538/2008-IA.II (M)
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan,
CGO Complex, Lodi Road
New Delhi-110510.
Dated: 10th January, 2013

To
The General Manager (Environment),
M/s Western Coalfields Ltd.,
Coal Estate, Civil Lines,
NAGPUR – 440001.

Sub: Dhuptala Opencast Mining Project (1.70 MTPA production capacity in an area of 1300.91 ha) of M/s Western Coalfields Ltd located near village Dhuptala, Tehsil Rajura, District Chandrapur, Maharashtra-Environmental Clearance-regarding

Sir,

This has reference to letter No. 43011/121/2008-CPAM dated 19.12.2008 of Ministry of Coal forwarding your application for Terms of Reference (TOR) and this Ministry's letter dated 9th February 2009 granting TOR to the above mentioned Project and subsequent letter from M/s WCL bearing no. WCL/ENV/HQ/1-C/309 dated 21.07.2012 submitting therewith the final EIA/EMP for Environmental Clearance for the above mentioned subject.

2. The Ministry of Environment & Forests has considered the application. It is noted that the application is for environmental clearance for new **Opencast Project named Dhuptala Opencast in terms of 1.70 MTPA production capacity in an area of 1300.91 ha.** The proposal is for conversion of Sasti underground mine to opencast mine (OCP) and to amalgamate it with the existing Dhuptala OCP. It has been noted, as has been presented by the proponent, that:

- (i) The proposal is for conversion of Sasti underground mine to opencast mine (OCP) and to amalgamate it with the existing Dhuptala OCP. The main consumer of coal is MAHAGENCO. Of the total lease area of 1300.91 ha, 1264.31 ha consist of agricultural land (land to be acquired – 879.14 ha and 385.17 ha is under possession) and 36.60 ha Govt. land (to be acquired) and 5 ha outside ML area for colony.
- (ii) The land use pattern of the of the open cast area (total 1300.91 ha) would be 385.68ha foreexcavation area, 396ha for external OB dump, 30 ha for infrastructure / approach road, 3 ha for colony, 15 ha for nala diversion, 381.23 ha for rationalization of mine boundary, 90 ha is for embankment.
- (iii) The mineable reserve is 54.60. The depth of initial mining is 25 m and final depth would be 150m. The gradient of seam is 1 in 10 to 1 in 18. The average thickness of seam is 15.68m and the grade of coal is F. The stripping ratio is 5.12 m³/t. Life of mine is 37 years.
- (iv) The coal transportation would be carried out by tarpaulin covered trucks.
- (v) The open cast mining would be by Shovel & Dumper combination. Continuous miner would be introduced in future.
- (vi) The total OB (including access trench) would be 279.50 Mm³. Of the total excavated area, 200 ha excavated area would be backfilled. The backfilling will be started from 10th year of the opening of the project. The total O.B. would be 289.16 Mm³. OB in external O.B. dump would be 203.46Mm³(including 6.0mm³OB in embankment, 34.30Mm³ OB in external dump (unconsolidated) and 163.16Mm³(hard OB) in external dump. OB in internal dumping would be 85.70mm³.

- (vii) In the post-mining stage, the land use pattern would be that the area under plantation would be 756 ha, public use will be 38 ha, undisturbed/area will be 321.23 ha, water body in 185.68 ha area with 150m depth . At the end of mining total 756 ha area would be under plantation with 1890000 no of plants.
- (viii) River Wardha flows adjacent to the ML boundary. Dhuptala nala and a local drain are flowing through the proposed quarriable area and drain into Rajur nala and further into Wardha River. Water level in core area is 6.75 to 7.40 m.bgl (Pre-Monsoon) & 1.1m bgl & 1.50m- bgl (Post Monsoon). The total requirement of water is 460 m³/day, the industrial requirement is 260m³/day and domestic requirement is 200 m³/day and mine water discharge is 13000m³/day.
- (ix) The R&R of Sasti village involves PAFs 75 Nos. which is located in quarriable area and is proposed to be shifted to a new site. The R&R cost would be Rs 10.82 crores. The Environmental Management & Protection Cost would be Rs 30 Lakh and recurring cost Rs 51.00 Lakh/annum. The CSR cost would be Rs.6.00 lakhs / year. The capital investment for the mining would be Rs.194.1064 crores.
- (x) There is no forest land involved in the project. There is no National Parks, Wildlife Sanctuaries, Biosphere Reserves is reported to be found in the 10 km buffer zone.
- (xi) The Public Hearing was held on 07.12.2011. The proponent had assured to take necessary action on the issues raised during public hearing.

2. The Ministry of Environment & Forests hereby accords environmental clearance for the above-mentioned **Dhuptala Opencast Coal Mine Project of M/s Western Coalfield for (1.70 MTPA production capacity in an area of 1300.91 ha)** under the provisions 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) The embankment constructed along the river boundary shall be of suitable dimensions and critical patches shall be strengthened by stone pitching on the river front side and stabilised with plantation so as to withstand the peak water flow and prevent mine inundation.
- (ii) There shall be no overflow of OB into the river and into the agricultural fields and massive plantation of native species shall be taken up in the area between the river and the project.
- (iii) OB shall be stacked at two earmarked external OB dumpsite(s) only. 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.
- (iv) 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.
- (v) 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.
- (vi) Crushers at the CHP of adequate capacity for the expansion project shall be operated with high efficiency bag filters, water sprinkling system shall be provided to check fugitive emissions from crushing operations, conveyor system, haulage roads, transfer points, etc.

- (vii) Drills shall be wet operated.
- (viii) 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,
- (ix) 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.
- (x) A Progressive afforestation plan shall be implemented covering an area of 630 ha at the end of mining, which includes reclaimed external OB dump (350 ha), Excavation area (150 ha), along ML boundary, along roads and infrastructure (10 ha), embankment area (50 ha) and Green belt (70 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. Massive plantation shall be carried out in open spaces in and around the mine and a 3-tier avenue plantation along the main approach roads to the mine.
- (xi) An estimated 289.16 Mm³ of OB will be generated during the entire life of the mine. Out of which 197.46 Mm³ of OB will be dumped in two external OB Dump in an earmarked area covering 396.00 ha of land. 6.00 Mm³ of OB will be dumped in embankment covering an area of 50.00 ha. The maximum height of external OB dump for hard OB will not exceed 90 m and that for soft OB shall not exceed 60 m. The maximum slope of the dump shall not exceed 28 degrees. Monitoring and management of reclaimed dump sites shall continue till the vegetation becomes self- sustaining and compliance status shall be submitted to MOEF and its Regional Office on yearly basis.
- (xii) Of the total quarry area of 385.68 ha, the backfilled quarry area of 150 ha shall be reclaimed with plantation and a void of 185.68 ha at a depth of 150 m 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.
- (xiii) No groundwater shall be used for mining operations.
- (xiv) 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.
- (xv) 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.
- (xvi) Sewage treatment plant shall be installed in the existing colony. ETP shall also be provided for workshop and CHP wastewater.
- (xvii) 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 a specialised agency /institution within the District/State and the results reported to this Ministry and to DGMS.

- (xviii) Land oustees shall be compensated as per the norms laid out R&R Policy of CIL or the National R&R Policy or R&R Policy of the State Government whichever is higher.
- (xix) 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.
- (xx) A detailed Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests within 6 months of grant of Environmental Clearance.
- (xxi) The project authorities shall in consultation with the Panchayats of the local villages and administration identify socio-economic and welfare measures under CSR to be carried out over the balance life of the mine.
- (xxii) Corporate Environment Responsibility:
- a) The Company shall have a well laid down Environment Policy approved by the Board of Directors.
 - b) The Environment Policy shall prescribe for standard operating process/procedures to bring into focus any infringements/deviation/violation of the environmental or forest norms/conditions.
 - c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished.
 - d) To have proper checks and balances, the company shall have a well laid down system of reporting of non-compliances/violations of environmental norms to the Board of Directors of the company and/or shareholders or stakeholders at large.
- (xxiii) Additional Conditions:-
- i. A Social Audit should be carried out annually for CSR activities. CSR activities should be carried out @ Rs 5/MT of production apart from Rs 80 Lakhs one time Capital expenditure.
 - ii. The proponent should prepare restoration and reclamation plan for the degraded area. The land be used in a productive and sustainable manner.
 - iii. Compensatory Ecological & Restoration of waste land, other degraded land and OB dumps in lieu of breaking open the land be carried out.
 - iv. The mining should be phased out in sustainable manner. No extra over burden dumps are permitted.
 - v. 100% backfilling should be carried out.
 - vi. The transportation of coal should be by a combination of road and rail. The road transportation of coal from the mine to railway siding will be by road and thereafter by rail to MAHAGENCO.
 - vii. Mechanically covered trucks should be introduced for coal transportation.
 - viii. Wagon loading at railway siding to be by mechanized hopper/silo loading.

- ix. The proponent should implement the assurances given during the Public Hearing.

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 of production for quantum of mineral coal 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 PM₁₀, PM_{2.5}, SO₂ and NO_x monitoring. 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. In addition, CO and CH₄ shall also be monitored within the underground coal mine and records thereof maintained and uploaded on the company website and also submitted to MOEF, RO, Bhopal.
- iv. Fugitive dust emissions (PM₁₀ and PM_{2.5}) from all the sources shall be controlled regularly monitored and data recorded properly. Water spraying arrangement on haul roads, wagon loading, dump trucks (loading and unloading) points shall be provided and properly maintained.
- v. Data on ambient air quality (PM₁₀, PM_{2.5}, SO₂ and NO_x) 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 months.
- vi. 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.
- vii. 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.
- viii. Vehicular emissions shall be kept under control and regularly monitored. Vehicles used for transporting the mineral shall be covered with tarpaulins and optimally loaded.
- ix. 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.
- x. 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 and records maintained thereof.
- xi. 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.
- xii. 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.

- 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 shall 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 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>.
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. Manoranjan Hota)
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 Arera Colony, Bhopal – 462016.
4. Member Secretary, 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. Dr. R.K. Garg, Advisor, Coal India Limited, SCOPE Minar, Core-I, 4th Floor, VikasMarg, Laxminagar, New Delhi.
8. District Collector, Chandrapur, Government of Maharashtra.
9. Monitoring File 10. Guard File 11. Record File.

(Dr. Manoranjan Hota)
Director