

No. J -11015/223/2005-IA.II (M)
Government of India
Ministry of Environment and Forests

13.06.05

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FOR GM, LINGARAJ AREA

FROM GM (ENVT) MCL

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

Dated 2nd February 2006

To,

Chief General Manager (Envt.)
Mahanadi Coalfield Limited,
Jagriti Vihar, P.O.U.C.E., Burla,
District Sambalpur-768 018
ORISSA.

Subject: Lingaraj opencast coal mining project of M/s Mahanadi Coalfields Ltd. located in Village(s) Balugaon, Longijoda, Nakulbaspur, Ambamunda, Balugaon-Khamar, Talabeda, Hensamul, Dhempakuta, Dadra, Mangurihata, Debalayapur, Madan-mohanpur, Malipada, Manikagoda, Gengutia and Badapasi, Tehsil Talcher, District Angul in Orissa- environmental clearance reg.

Sir,

This has reference to the Coal India Ltd., New Delhi letter No. CIL/DLI/ENV/2005/84 dated 13.06.2005 and Mahanadi Coalfields Ltd. letter No. MCL/SBP/GM(Envt)/Ling/2005/1043 dated 07.11.2005 and subsequent letter dated 07.12.2005 on the subject mentioned above. The Ministry of Environment & Forests has considered the environmental clearance application. It has been noted that the proposal is for enhancement of production capacity of the mine. The total land requirement of the project is 1493.20 ha, comprising 1410.01 ha of lease area and 83.19 ha area out side the lease (6.0 ha for residential colony and 77.19 ha for rehabilitation site). Out of the total mining lease area of 1410.01 ha, 828.699 ha is an agricultural land, 186.311 ha is forestland, 350.00 ha is wasteland and 45.00 ha is surface water bodies. Forestry clearance for diversion of 186.311 ha forestland obtained on 02.03.1989. Area proposed for mining is 510.851 ha, 256.03 ha area is kept for OB dumps, 51.80 ha for infrastructure, 10.41 for rationalization of project boundary and road for diversion and 580.919 ha for others (safety zone for blasting and magazine). No ecologically sensitive area such as national park/sanctuary/biosphere reserve etc reported in the core as well as buffer zone of the project. There are 7 villages comprising 677 households with a population of 4064 people in the core zone. Displacement of population and R&R is involved. 208 additional families comprising a population 1252 people from villages namely Balugaon-Khamar and Madanmohanpur will be displaced due to mining and its related activities in the expansion project. The annual targeted production capacity of the mine is 13.0 million tonnes. Working is open cast by mechanised method using shovel-dumper system and surface miner. Blasting with short delay detonators initiated by shock tube initiation system and site mixed slurry explosives is involved. Peak water requirement is 5000 m³/day out of which 2700 m³/day is being met from integrated water supply scheme of Talcher Coalfields with intake point at the ...2/-

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Brahmani river and 2300 m³/day from mine sump water. A total of 244.05 Mm³ of OB will be generated out of which 185.95 Mm³ will be backfilled and 58.46 Mm³ will be dumped externally in two dumps. It is an ongoing project and backfilling is in progress. Simultaneous backfilling and external dumping of OB will continue upto 6 year of operation and from 7th year onwards only backfilling of OB will be done till the end of mine life. NOC from the State Pollution Control Board obtained on 21.05.2005 for 13.0 MTPA production. The Mahanadi Coalfields Ltd. Board has approved project report for 13.0 MTPA production on 02.11.2005. Public hearing held on 27.11.2004. Forestry clearance obtained on 02.03.1989 for diversion of 186.311 ha of forestland. Capital cost of the project is Rs.328.73 crores.

2. The Ministry of Environment and Forests hereby accords prospective environmental clearance to the above mentioned coal mining project of M/s Mahanadi Coalfields Limited for 13.0 MTY production by opencast method involving total lease area of 1410.01 ha under the provisions of the EIA Notification 1994 and its subsequent amendments issued under Environment (Protection) Act, 1986 subject to implementation of the following conditions/safeguards.

A. Specific conditions

- (i) The environmental clearance is subject to approval of the State Landuse Department, Government of Orissa for diversion of agricultural land for non-agricultural use.
- (ii) Environmental clearance is subject to grant of forestry clearance for diversion of forestland.
- (iii) Top soil should be stacked with proper slope at earmarked site(s) only with adequate measures and should be used for reclamation and rehabilitation of mined out areas.
- (iv) 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 shall not exceed 28 degree. Concurrent backfilling should be practiced. 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 six monthly basis.
- (v) Check dams and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from soil and mineral dumps. The water so collected should be utilized for watering mine area, roads, green belt development etc. The drains should be regularly desilted and maintained properly.

Garland drain (size, gradient and length) and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material.

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- (vi) 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.
- (vii) Plantation should be raised in an area of 584.17 ha by planting the native species around the ML area, OB dump sites, backfilled area, safety zone, infrastructure etc. in consultation with the local DFO / Agriculture Department. The density of the trees should be around 2500 plants per ha.
- (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, South Eastern region, Bhubneshwar.
- (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 i.e January, April-May, August and November and the data thus collected may be sent regularly to Ministry of Environment and Forests, Central Ground Water Authority and South Eastern region, Central Ground Water Board, Bhubneshwar.
- (x) The project authorities should obtain prior approval of the competent authority for drawal of 2700 m³/day potable water from the Integrated Water Supply Scheme of Talcher Coalfield with intake point at Brahmani River.
- (xi) Suitable embankment of proper dimensions should be constructed to protect the area from flood water during rainy season.
- (xii) Appropriate mitigative measures should be taken to prevent pollution of Brahmani river in consultation with the State Pollution Control Board.
- (xiii) 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.
- (xiv) 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.
- (xv) Consent to operate should be obtained from SPCB before starting enhanced production from the mine.
- (xvi) Blasting operation should be carried out only during the daytime. Controlled blasting should be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.
- (xvii) Vehicular emissions should be kept under control and regularly monitored.
- (xviii) 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.

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- (xix) 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.
 - (xx) Land oustees and land losers shall be compensated as per the R&R plan approved by the CIL & State Government.

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) Atleast four ambient air quality monitoring stations should be established in the core zone as well as the buffer zone for RPM, SPM, SO₂ and NO_x 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. Data on ambient air quality (RPM, SPM, SO₂ and NO_x) should be regularly submitted to the Ministry including its Regional Office at Bhubneshwar and to the State Pollution Control Board/Central Pollution Control Board once in six months.
- (iv) Drills should either be operated with dust extractors or should be equipped with water injection system.
- (v) Fugitive dust emissions from all the sources should be controlled and monitored regularly. Water spraying arrangements on haul roads, loading & unloading and at transfer points should be provided and properly maintained.
- (vi) Adequate measures should be taken for control of noise levels within prescribed standards. Workers engaged in blasting and drilling operations, operations of HEMM, etc., should be provided with ear plugs/muffs.
- (vii) Industrial wastewater (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 effluents from workshop.
- (viii) Acid mine water, if any has to be treated and disposed of after conforming to the standard prescribed the competent authority.
- (ix) 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 coal dust and take corrective measures, if needed.

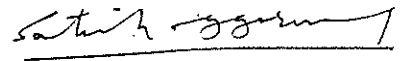
- (x) A separate environmental management cell with suitable qualified personnel should be set up under the control of a senior Executive, who will report directly to the Head of the organization.
- (xi) The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purposes. Year-wise expenditure should be reported to the Regional Office, Bhubneshwar of the MOEF and to the Ministry.
- (xii) The Regional Office of this Ministry located at Bhubneshwar shall monitor compliance of the stipulated conditions. The Project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing requisite data/information/monitoring reports.
- (xiii) A copy of the clearance letter will be marked to the concerned Panchayat /local NGO, if any, from whom any suggestions/representation has been received while processing the proposal.
- (xiv) The project authorities should inform to the Regional Office located at Bhubneshwar regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- (xv) State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector's/Tehsildar's Office for 30 days.
- (xvi) The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the 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 and Forests at <http://envfor.nic.in> and a copy of the same should be forwarded to the Regional Office of this Ministry located Bhubneshwar.

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

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Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules.


(Dr. S.K. Aggarwal)
Director

Copy to:

1. Secretary, Ministry of Coal, Government of India, Shastri Bhawan, New Delhi.
 2. Secretary, Department of Environment, Government of Orissa, Secretariat, Bhubneshwar.
 3. Secretary, Department of Mines and Geology, Government of Orissa, Secretariat, Bhubneshwar.
 4. Chief Conservator of Forests, Regional Office (EZ), Ministry of Environment and Forests, A-3 Chandrashekharpur, Bhubaneshwar-751023.
 5. Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
 6. Chairman, Orissa State Pollution Control Board, Parivesh Bhawan, A/118 Nilakantha Nagar, Unit-VIII, Bhubaneshwar-751012.
 7. Member Secretary, Central Ground Water Authority, A2, W3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.
 8. District Collector, Angul, Orissa.
 9. Shri M.K.Shukla, Chief General Manager, Coal India Limited, Core-I, 4th Floor, SCOPE Minar, Vikas Marg, New Delhi-110092
- EI Division, Ministry of Environment & Forests, EI Division, New Delhi.
10. Monitoring File.
 11. Guard File.
 12. Record File.

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