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No.J-11015/141/2005-IA.II(M)  
Government of India  
Ministry of Environment & Forests

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

Dated: 19<sup>th</sup> June 2006

To  
Shri J.V. Dattatreya  
M/s Singareni Collieries Company Ltd.,  
Kothagudam Collieries - 507 101,  
Bhadrachalam Road Railway Station,  
Khammam District, A.P.

**Sub: Dorli-I Opencast Coal Mine Project (0.70 MTPA) of M/s Singareni Collieries Company Ltd., located in village Dorli, Mandal Tiriyani, District Adilabad, Andhra Pradesh- environmental clearance - reg.**

Sir,

This has reference to letter No. 43011/(12/2005-CPAM) dated 18.03.2005 submitting your application dated 04.03.2005 and your letters dated 02.05.2005, 24.11.2005, and 20.05.2006 on the above-mentioned subject. The Ministry of Environment & Forests has considered your application. It has been noted that the project is for opening a **new Dorli-I Opencast Coal Mine Project. The total lease area is 510.10 ha** of which 412.224 ha is agricultural land, 6.551 ha is wasteland, 26.275 ha is grazing land, 53.475 ha is water bodies and 11.575 ha is others (village land and roads). Of the total lease area, area for excavation is 203 ha, 152.70 ha is for OB dumps, 9.80 ha is for infrastructure, 94.3 ha is safety zone, and 50.3 ha is for diversion of nallah. There are no National Parks, Wildlife Sanctuary, Biosphere Reserves found in the 10 km buffer zone. A seasonal nallah viz. Dantanpalle nallah flows across the lease area. The project involves modification of the natural drainage. An embankment for protection against flood is also proposed. Project involves R&R of 2 villages- Dantanpalle and Dorli. Mining will be opencast by mechanised method and involves controlled blasting. **The rated capacity of the project is 0.70 million tonnes per annum (MTPA) of coal production.** Mineral transportation of **2121 TPD** of coal is by road for a distance of 18km. Ultimate working depth of the mine is 170m below ground level (bgl). Water table is in the range of 4.32-15.95m during pre-monsoon and 2.0- 13.65 m bgl during post-monsoon in the core zone and buffer zone. Mining will intersect water table. Peak water requirement is 1050 m<sup>3</sup>/d, which will be met from mine pit water. An estimated 140.78 Mm<sup>3</sup> of OB and 4.06 Mm<sup>3</sup> of topsoil will be generated in life of mine of which about 66.78 Mm<sup>3</sup> of the OB (47%) will be backfilled and the balance will be dumped in one external dump of 90m max. height. Backfilling will begin from 5<sup>th</sup> year onwards. Public Hearing was held on 10.11.2004. NOC has been obtained on 13.01.2005. Life of the mine at the rated capacity is 26 years. The Mining Plan has been approved by Ministry of Coal on 19.05.2006. Capital cost of the project is **Rs. 48.68 crores.**

2. The Ministry of Environment & Forests hereby accords environmental clearance for the above-mentioned **Dorli-I Opencast Coal Mine Project of M/s Singareni Collieries Company Ltd. for production of coal of 0.70 MTPA rated capacity over a lease area of 510.10 ha** under the provisions of the Environmental Impact Assessment Notification, 1994 and subsequent amendments thereto subject to the compliance of the terms and conditions mentioned below:

#### A. Specific Conditions

- (i) All the conditions stipulated by the SPCB in their NOC shall be effectively implemented.
- (ii) The bund/embankment shall be designed taking into account the highest flood level, based on past data, of the drainage of the water bodies in the buffer zone which impact the mining operations so as to guard against mine inundation.
- (iii) Topsoil 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 green belt.
- (iv) OB should be stacked at earmarked external OB dumpsite(s) within ML area and shall be a maximum height of 90m only. The ultimate slope of the dump shall not exceed 28°. Backfilling shall begin at the end of 5<sup>th</sup> year in the decoaled area. Monitoring and management of existing reclaimed dumpsites 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 Bangalore on an yearly basis.
- (v) 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 utilised for watering the mine area, roads, green belt development, etc. The drains should be regularly desilted and maintained properly.  
Garland drains (size, gradient and 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 mine site. Sump capacity should also provided adequate retention period to allow proper settling of silt material.
- (vi) Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation should be based on the rainfall data.
- (vii) 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, conveyor system, haulage roads, and transfer points.
- (viii) Drills should be wet operated.
- (ix) Controlled blasting shall be practiced only during daytime with use of delay detonators. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders should be implemented.
- (x) Area brought under afforestation shall include a total area of 297.07 ha and includes reclaimed external OB dump (152.70 ha), reclaimed topsoil dump, backfilled area (74.86 ha), along ML boundary, 29.71 ha along diversion of river and bund (30 ha), along service buildings (9.8 ha) within the lease and avenue plantation and green belt outside the lease (township) by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.
- (xi) A Progressive Closure Plan shall be implemented by reclamation of quarry area of 74.86 ha shall be backfilled and afforested 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. The balance 128.14 ha of decoaled area shall be

converted into a water reservoir, the upper benches of which shall be gently sloped and stabilised and reclaimed with plantation and the reservoir peripherally fenced.

- (xii) Conservation Plan for endangered species found in and around the project area shall be formulated, if required, in consultation with the State Forest and Wildlife Departments.
- (xiii) The company shall obtain prior approval of CGWA/CGWB Regional Office for use of groundwater if any, for mining operations.
- (xiv) 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 quantity should 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 should 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. The project authorities should meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.
- (xvi) ETP should also be provided for workshop and CHP wastewater.
- (xvii) A sewage treatment plant shall be installed in the combined township.
- (xviii) R&R shall not be less than the norms laid out by the State Government and the National R&R Policy and shall be completed within a specified time-frame.
- (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) Consent to Operate shall be obtained before starting mining operations.

#### **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 SPM, RPM, SO<sub>2</sub> and NO<sub>x</sub> 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) Fugitive dust emissions (SPM and RPM) from all the sources should be controlled regularly monitored and data recorded properly. Water spraying arrangement on haul roads, wagon loading, dump trucks (loading and unloading) points should be provided and properly maintained.

- (v) Data on ambient air quality (SPM, RPM, SO<sub>2</sub> and NO<sub>x</sub>) should be regularly submitted to the Ministry including its Regional Office at Bangalore and to the State Pollution Control Board and the Central Pollution Control Board once in six months.
- (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, operation 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 19<sup>th</sup> May 1993 and 31<sup>st</sup> December 1993 or as amended from time to time before discharge. 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 to 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 this Ministry and its Regional Office at Bangalore.
- (xiii) The Regional Office of this Ministry located at Bangalore 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 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 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.

(Dr.T.Chandini)  
Additional Director

**Copy to:**

1. Secretary, Ministry of Coal, Shastri Bhawan, New Delhi.
2. Secretary, Department of Environment & Forests, Government of Andhra Pradesh, Secretariat, Hyderabad.
3. Chief Conservator of Forests, Regional office (SZ), Ministry of Environment & Forests, 4<sup>th</sup> Floor, F-Wing, Kenriya Sadan Block, Kormangala, Bangalore – 560034.
4. Chairman, Andhra Pradesh State Pollution Control Board, 2<sup>nd</sup> Floor, HUDA Complex, Maitrivanam, S.R.Nagar, Ameerpet, Opp. Sarathi Studio, Hyderabad – 500038.
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. District Collector, Adilabad, Government of Andhra Pradesh.
8. Monitoring File      9.      Guard File      10.      Record File

(Dr.T.Chandini)  
Additional Director