

Dated: 2<sup>nd</sup> July 2008

To  
**M/s Singareni Collieries Company Ltd.,**  
Kothagudam Collieries – 507 101,  
Bhadrachalam Road Railway Station,  
Khammam District, A.P.

**Meddapalli Opencast Coal Mine Expansion Project (expansion in rated capacity from 1.25 MTPA to 3.0 MTPA with a peak production of 4.09 MTPA) of M/s Singareni Collieries Company Ltd., located in village Meddapalli, Mandal Ramagundam, District Karimnagar, Andhra Pradesh- environmental clearance – reg.**  
Sir,

This is with reference to your letter No. CRP/ENV/A/460/218 dated 24.03.2007 for Terms of Reference which was granted vide MOEF letter dated 22.08.2007 and with reference to your application for environmental clearance based on the prescribed Terms of Reference vide letter No. CRP/ENV/A/460/74 dated 30.01.2008 and your subsequent letters dated 29.05.2008 and E-mails dated 20.06.2008 on the above-mentioned subject. The Ministry of Environment & Forests has considered your application. It has been noted that the project originally named **Meddapalli Opencast Coal Mine Expansion Project** was granted environmental clearance vide MOEF letter No. J-11015/44/89-IA.II dated 22.06.1992 for production of coal at a rated capacity of 1.25 MTPA. The present application is for expansion in production from 1.25 MTPA to 3 MTPA with a peak production of 4.09 MTPA within the same lease area of 1171.55 ha, of which 686.05 ha is cultivable land, 174 ha is irrigated land, and 311.50 ha is barren land. No forestland and R&R is involved. Of the total lease area, area for excavation is 376.38 ha, 506.76 ha is for external OB dumps, 161.45 ha is for infrastructure such as service buildings, CHP, etc., and 126.96 ha is for flood protection bund along the River Godavari flowing along its north eastern boundary for a length of 7.03 km. The design of the bund was approved by the Central Water Commission.

There are no National Parks, Wildlife Sanctuary, Biosphere Reserves found within the 10 km buffer zone. Mining will be opencast by mechanised method using shovel-dumper and Highwall mining and involves controlled blasting. Expansion of the rated capacity of the mine is from 1.25 million tonnes per annum (MTPA) to 3 MTPA of coal production with a peak production of 4.09 MTPA from 2<sup>nd</sup> year onwards. Mineral transportation of **9091 TPD of coal** is by road. Ultimate working depth of the mine is 220 m below ground level (bgl). Water table in the core zone is in the range of 1.69m – 13.30m bgl during the pre-monsoon and in the range of 0.50 m – 11m bgl during post monsoon period. Mining has intersected water table. Clearance from the State Ground Water Department has been obtained. Peak water requirement is 1560 m<sup>3</sup>/d, which will be met from mine pit water. The total OB generation from this project is 341.94 Mm<sup>3</sup> of which 78.17 Mm<sup>3</sup> has been stored in ext. OB dump. An estimated 263.77 Mm<sup>3</sup> of OB will be generated in the balance life of mine; of which about 107.03 Mm<sup>3</sup> of the OB will be backfilled and 153.74 Mm<sup>3</sup> of OB will be accumulated in external OB dump of a max. height of 90m in 3 benches of 30m each. Backfilling will begin from 6<sup>th</sup> year onwards till end of mine life. A void of 287.08 ha will be left at the end of mine life which will be converted into a water reservoir of a max. depth of 30m after dumping with 159.12 Mm<sup>3</sup> of OB from the proposed Ramagundam OG –V mine. Balance life of the mine is 16 years. Public Hearing was held on 18.12.2007. Mining Plan has been approved by Ministry of Coal on 26.02.2008. Capital cost of the project is **Rs. 2895 lakhs.**

2. The Ministry of Environment & Forests hereby accords environmental clearance for the above-mentioned **Meddapalli Opencast Coal Mine Expansion Project of M/s Singareni Collieries Company Ltd. for expansion in production of coal from 1.25 MTPA to 3 MTPA with a peak production of 4.09 MTPA rated capacity within a lease area of 1171.55 ha** under Section 12 of the Environmental Impact Assessment Notification, 2006 and subsequent amendments thereto and under Para 2.1.1 of MOEF Circular dated 13.10.2006 subject to the compliance of the terms and conditions mentioned below:

**A. Specific Conditions**

- (i) Topsoil shall be stacked properly with proper slope at earmarked site(s) and shall not be kept active and shall be used for reclamation and development of green belt.
- (ii) OB shall be stacked at earmarked external OB dumpsite(s) within ML area and shall be a maximum height of 90m only consisting of 3 benches of 30m each. 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 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 Bangalore on an yearly basis.
- (iii) 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 of suitable 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 be provided for adequate retention period to allow proper settling of silt material.
- (iv) 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.
- (v) Crushers at the existing CHP and that to be constructed 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, and transfer points.
- (vi) Drills shall be wet operated only. Mechanical sweeping of the main haul roads shall be regularly undertaken.
- (vii) 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 shall be implemented.
- (viii) Afforestation shall cover a total area of not less than 748 ha which includes reclaimed external OB dump (485.30 ha), reclaimed topsoil dump, backfilled area (89.29 ha), along ML boundary, along drains and along main approach roads, major haul roads, near CHP, parking area and service buildings, undisturbed/vacant area (173.95 ha) within the lease and in the township 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) The flood protection bund a length of 7.03 km constructed along the River Godavari flowing along its north eastern boundary shall be stabilised with thick plantation using native species.
- (x) A Progressive Mine Closure Plan shall be implemented by reclamation of quarry area of 89.29 ha which shall be backfilled and the balance final void of 287.08 ha left at the end of mine life being converted into a water reservoir shall be of a max. depth of 30m after dumping 159.12 Mm<sup>3</sup> of OB from the proposed Ramgundam OG –V mine. The backfilled area shall be afforested 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. The balance 129.17ha of decoaled area being converted into a water reservoir shall be gently sloped, and the upper benches of which shall be stabilised and reclaimed with plantation and the reservoir peripherally fenced.
- (xi) The conditions stipulated by the State Ground Water Department shall be effectively implemented. The company shall obtain prior approval of CGWA/CGWB Regional Office for use of groundwater if any, for mining operations.
- (xii) 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.
- (xiii) The Company shall put up artificial groundwater recharge measures for augmentation of groundwater resource in case of monitoring of water table indicates a declining trend. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.
- (xiv) 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.

ETP shall also be provided for workshop and CHP wastewater. Mine discharge water shall be treated to prescribed standards before discharge into any natural water course.

- (xvi) A sewage treatment plant shall be installed in the combined township and in the proposed township to be established within the lease.
- (xvii) For monitoring land use pattern and for post mining land use, a time series of landuse 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 Bangalore.
- (xviii) A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.

**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 SPM, RPM, SO<sub>2</sub> and NO<sub>x</sub> 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.
- (iv) Fugitive dust emissions (SPM and RPM) 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 (SPM, RPM, SO<sub>2</sub> and NO<sub>x</sub>) shall 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 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 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 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) Environmental laboratory shall 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 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.
- (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 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 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.

(Dr.T.Chandini)  
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, Paryavaran Bhawan, A-3 Industrial Estate, Sanatnagar, 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, Karimnagar, Government of Andhra Pradesh.
8. Monitoring File                      9.                      Guard File                      10.                      Record File

(Dr.T.Chandini)  
Director