

Dated: 26<sup>th</sup> July 2007

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

**Sub: Expansion of Kakatiya Khani-3 Incline Underground Coal Mine Project (from 0.30 MTPA to 0.572 MTPA) of M/s Singareni Collieries Company Ltd. (SCCL), located in village Bhoopalpalli, Tehsil Bhoopalpalli, District Warangal, Andhra Pradesh - environmental clearance – reg.**  
Sir,

This has reference to letter No. 43011/21/2003-CPAM of Ministry of Coal dated 29.03.2005 forwarding your application dated 28.03.2005 and letter of MOC dated 06.05.2005 forwarding the minutes of the Public Hearing and your letters dated 08.11.2005 on the above-mentioned subject. The Ministry of Environment & Forests has considered your application. It has been noted that the project is for **expansion in production of the existing Kakatiya Khani-3 Incline Underground Coalmine Project (UGP) from 0.30 MTPA to 0.572 MTPA. The total lease area is 277.70 ha** of which 62.86 ha is agricultural land, 110.99 ha is wasteland, 7.44 ha consist of surface water bodies and 33.32 ha consist of other land. There is no forestland involved. There are no National Parks, Wildlife Sanctuary, Biosphere Reserves found in the 10 km buffer zone. The study area has a number of Schedule-I and II fauna such as Tiger, Panther, Python. A seasonal stream Aravagu affecting the drainage of the mine site joins river Maneru at a distance of 16km from the mine site. It is not proposed to modify the natural drainage of the area. Of the total lease area, 33.32 ha for infrastructure (10 ha), roads (5.70 ha), has been acquired and the balance 244.38 ha is in the process of acquisition. A township of 421 households is located in an area of 42 ha at a distance of 1-2 km. A pit head CHP for loading coal to dumpers for transporting coal by road exists. Project does not involve R&R. Mining will be underground by semi-mechanised method. **Expansion of the rated capacity of the mine is from 0.30 million tonnes per annum (MTPA) to 0.572 MTPA of coal production.** Mineral transportation of **1907 TPD** of coal is by road involving 190 trips of 10-Tipper trucks to CHP. Ultimate working depth is 325 m below ground level (bgl). Existing road network is adequate. Water table is in the range of 4.2m – 12.80m bgl in the pre-monsoon and 2.50- 11.0m bgl in the post-monsoon. Mining will intersect water table. Average water requirement would be 350 m<sup>3</sup>/d, which would be met from mine discharge water. Life of the mine at the rated capacity is 33 years. Public Hearing was held on 04.05.2005. NOC has been obtained on 06.09.1995. Mining Plan approval granted by Ministry of Coal on 12.10.2006. The capital cost of the project is **Rs. 47.33 crores.**

2. The Ministry of Environment & forests hereby accords environmental clearance for the above-mentioned **Kakatiya Khani-3 Incline Underground Coal Mine Project of M/s SCCL of a lease area of 277.70 ha for expansion in production of coal from 0.30 MTPA to 0.572 MTPA rated capacity** under the provisions of 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

The entire area falling within the lease shall be acquired before expansion in mining operations are carried out.

Mining shall be carried out as per statuette at a safe distance from the vagu flowing within the lease boundary.

Sufficient coal pillars shall be left unextracted around the air shaft (within the subsidence influence area) to protect from any damage from subsidence, if any.

Solid barriers shall be left below the roads falling within the blocks to avoid any damage to the roads.

(v) No depillaring operation shall be carried out below the village area.

(vi) Regular monitoring of subsidence movement on the surface over and around the working area and impact on natural drainage pattern, water bodies, vegetation, structure, roads, and surroundings should be continued till movement ceases completely. In case of observation of any high rate of subsidence movement, appropriate effective corrective measures should be taken to avoid loss of life and material. Cracks should be effectively plugged with ballast and clayey soil/suitable material.

(vii) Garland/surface drains (size, gradient and length) around the safety areas such as mine shaft and low lying areas and sump capacity should be designed keeping 50% safety margin over an above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. Sump capacity should also provided adequate retention period to allow proper setting of silt material. Sufficient number of pumps of adequate capacity shall be deployed to pump out mine water during peak rainfall.

(viii) While extracting panels in the lower seam, all water bodies in the subsidence area shall be drained. Dewatering of the old goaves of the upper seam shall be continued as long as the lower seam is worked to prevent accumulation of large water bodies over working area.

(ix) 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, transfer points, etc.

(x) Drills should be wet operated only.

(xi) Controlled blasting should be practiced with use of delay detonators. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders should be implemented.

(xii) A progressive afforestation plan shall be prepared and implanted for the undisturbed area and shall include area brought under green belt development, areas along roads, infrastructure, over surface where mining is being done below, along ML boundary an township outside the lease areas, etc, by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.

(xiii) Conservation Plan for endangered species found in and around the project area shall be formulated in consultation with the State Forest and Wildlife Departments. A separate fund earmarked for conservation measures shall be maintained and the details of expenditure along with report on the implementation of the Conservation Plan submitted regularly to the MOEF, RO at Bangalore.

(xiv) Regular monitoring of groundwater level and quality should be carried out by establishing a network of exiting wells and construction of new peizometers. 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) The company shall obtain approval of CGWA/CGWB Regional Office for use of groundwater , if any, for mining operations.

(xvii) Sewage treatment plant should be installed in the existing colony. ETP should also be provided for workshop and CHP wastewater. The quality of mine discharge water, if any, shall be treated to prescribed standards and monitored regularly at the discharge point.

(xviii) 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.

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.

(xx) 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.

(xxi) Consent to Operate shall be obtained before expanding 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 clearance letter shall 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)  
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 .
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, Warangal, Government of Andhra Pradesh.
8. Monitoring File 9. Guard File 10. Record File.

(Dr.T.Chandini)  
Director