



No.J-11015/240/2003-IA-II(M)
Government of India
Ministry of Environment & Forests

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

Dated: 16th September 2004

To
Shri G.N.Sharma,
Director (Planning & Projects),
Singareni Collieries Company Ltd.,
Kothagudem Collieries P.O.,
Khammam District – 507101.
Andhra Pradesh.

Sub: Sathupally Opencast Coal Mining Project-I (0.70 MTPA) of M/s Singareni Collieries Company Ltd. (SCCL) near Sathupalli Town in Sathupalli Mandal in Khammam District, A.P.- application for environmental site clearance – reg.

Sir,

This has reference to Ministry of Coal's letter No. 43011/18/2003-CPAM dated 18.11.2003 forwarding your application and your letters dated 20.02.2004, 22.04.2004, 28.05.2004, and 21.08.2004 on the subject mentioned above. The Ministry of Environment and Forests has considered the application. It has been noted that the project is for opening a new opencast coal mine. The total mining lease area is **383.05 ha** consisting of 234.60 ha of forestland of the Budavada Reserve Forest, 63.62 ha of agricultural land, 74.83 ha of Government land and 10.0 of wasteland. In addition, an area of 27.53 ha outside the lease is also to be part of the project area. There are no ecologically sensitive areas within 10 km of the mines site. There is no displacement of populations due to this project. Site Clearance was accorded on 14.05.2004. Of the total lease area of 383.05 ha, area for mining (including roads and drains) will be 234.57 ha, 132.53 ha for OB dumps, and 15.95 ha for infrastructure. The Behupalli Flood Flow Canal forms the eastern boundary of the mining block and is at a distance of 45m from the quarry edge. Two water tanks are located near the lease area. It is not proposed to modify the natural drainage of the area. Diversion of 3.6 km length of State Expressway passing through the lease area has been obtained. Mining will be by opencast mechanised method. Drilling and blasting are involved. Ultimate working depth is 130 m below ground level (bgl). Water table is in the range of 1.35 m bgl (post monsoon) and 11.20 m bgl (pre-monsoon). Water requirement is estimated to be 1800 m³/d. NOC from the State Ground Water Department has been obtained on 30.12.2003. CGWA has approved the project from the groundwater angle. Rated capacity of the mine is **0.7 million tonnes per annum (MTPA) of coal**. An estimated 233.33 TPD of coal will be transported from the mine site to Coal Handling Plant located at a distance of 1.2 km. An estimated 3.91 million cu.m of topsoil and 54.44 million cu.m of OB would be generated over life of mine, which will be backfilled. Public Hearing was held on 25.03.2003. The A.P. State Pollution Control Board has issued the Consent to Establish on 26.09.2003. The Company has approved the Project on 11.01.2003. Approval of the Ministry of Coal has been obtained on 24.06.2004. Life of the mine at the rated capacity is 18 years. The capital cost of the project is **Rs. 4344 lakhs**.

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2. The Ministry of Environment & Forests hereby accords environmental clearance for the above-mentioned proposed **Sathupalli opencast coal mine project** of M/s SCCL for production of **0.7 MTPA of coal** in a lease area of **383.05 ha** under the provisions of Environmental Impact Assessment Notification, 1994 as amended from time to time subject to the compliance of the terms and conditions mentioned below:

A. Specific Conditions

- (i) No developmental activity relating to the project at site shall begin before obtaining forestry clearance.
- (ii) No mining operations shall commence before the construction of a flood protection bund alongside the Behupalli Flood Flow Canal flowing 1.86 km along side the lease area. The top of the bund shall be sufficiently higher than the High Flood Level (HFL) of the Canal. Terracing and bio-reclamation shall be adopted for stabilisation of the bund.
- (iii) The approval of the Directorate General of Mines Safety with regard to Disaster Management Plan especially due to danger of mine inundation shall be obtained prior to start of mining operations.
- (iv) Top soil should be stacked properly with proper slope at earmarked site(s) with adequate measures and should be used for reclamation and rehabilitation of mined out area.
- (v) OB should be stacked at earmarked dumpsite(s) only. OB dumps shall be a maximum height of 90 m only and consist of three benches of 30 m each. The ultimate slope of the dump shall not exceed 28°. Monitoring and management of rehabilitated dump sites 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 yearly basis.
- (vi) Catch drains and siltation ponds of appropriate site 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 & 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 mines site. Sump capacity should also provide adequate retention period to allow proper settling of silt material.
- (vii) 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.
- (viii) 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, haulage roads, transfer points, etc.
- (ix) Drills should be wet operated or with dust extractors and operated only during daytime.

- (x) Controlled blasting should be practiced with the use of delay detonators and only during daytime. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders should be implemented.
- (xi) The total lease area which shall be afforested at the end of mine life shall be 333.27 ha. This includes a green belt of 200.17 ha along ML boundary, 133.10 ha on OB dump sites, and in addition, 5.13 ha alongside roads and 5.0 ha in township outside the lease area for suppression of dust by planting the native plant species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.
- (xii) Backfilling of the mined out area shall commence from the 8th year onwards and of the total quarry area of 193.0 ha, 141.07 ha shall be reclaimed leaving a void of an area of 51.93 ha which is to be converted in to a water reservoir. The higher benches of the void shall be terraced and plantation done to stabilise the slopes. Peripheral fencing shall be done along the excavated area.
- (xiii) 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 the Central Ground Water Board, Regional Office quarterly within one month of monitoring.
- (xiv) 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 de-watering of the mine.
- (xv) Sewage treatment plant should be installed for the colony. ETP should also be provided for workshop and CHP wastewater.
- (xvi) Digital processing of the entire lease area using remote sensing techniques should be done regularly once in 3 years for monitoring land use pattern and report submitted to MOEF and its Regional Office at Bangalore.
- (xvii) A detailed mine commissioning plan should be submitted to the Ministry of Environment & Forests 5 years in advance of approval.

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 RPM, SPM, SO₂, NO_x, and CO 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) Data on ambient air quality (RPM, SPM, SO₂, NO_x and CO) should be regularly submitted to the Ministry including its Regional Office at Bangalore and the Gujarat State Pollution Control Board and the Central pollution Control Board once in six months.
- (v) Fugitive dust emissions from all the sources should be controlled regularly monitored and data recorded properly. Water spraying arrangement on haul roads, wagon loading, dump trucks (loading & unloading) points should be provided and properly maintained.
- (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, operations 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 19th May 1993 and 31st December 1993 or as amended from time to time. 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 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 the Ministry and its Regional Office located at Bangalore.
- (xv) The Regional Office of this Ministry located at Bangalore shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/information/monitoring reports.

- (xvi) A copy of the clearance letter will be marked to concerned Panchayat/local NGO, if any, from whom and suggestion/representation has been received while processing the proposal.
- (xvii) 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.
- (xviii) 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 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 & 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.
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 & Mines, Department of Coal, Govt. of India, Shastri Bhawan, New Delhi.
2. Secretary, Department of Environment & Forests, Government of Andhra Pradesh, Hyderabad.
3. Department of Mines & Geology, Government of Andhra Pradesh, 8th Floor, B.R.K.Complex, Hyderabad- 500003.
4. Chief Conservator of Forests, Ministry of Environment & Forests, Regional Office (SZ), E-3/240, Kendriya Sadan, IV Floor, E&F Wings, 17th Main Road, II Block, Koramangala, Bangalore-560034.
5. Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi-110032.
6. Chairman, A.P. State Pollution Control Board, 2nd Floor, Maitrivanam, HUDA Complex, S.R.Nagar, Hyderabad -500038.
7. Member-Secretary, Central Ground Water Authority, Ministry of Water Resources, A-2, W-3, K.G. Marg, New Delhi-110001.
8. District Collector, Khammam District, Andhra Pradesh.
9. E.I.Division, Ministry of Environment & Forests, New Delhi.
10. Guard File. 11. Monitoring File. 12. Record File.

(Dr.T.Chandini)
Additional Director