

No.J-11016/24/2004-IA.II(M)
Government of India
Ministry of Environment & Forests

Paryavaran Bhawan,
CGO Complex, Lodi Road,
New Delhi-110003.

Dated: 11th October 2004

To
Shri G.N.Sharma,
Director (Planning & Projects),
The Singareni Collieries Company Ltd.,
Kothagudem Collieries - (PO),
Khammam District- 507101
Andhra Pradesh.

Sub: Adriyala Shaft Coal Mining Project (2.144 MTPA) of M/s Singareni Collieries Company Ltd. (SCCL), near Adriyala village, Manthani Mandal, Karimnagar District, Andhra Pradesh - Application for Env. Clearance-reg.

Sir,

This has reference to Department of Coal, Ministry of Coal & Mines's letter No.43011/23/2003-CPAM dated 23.04.2004, your letter dated 28.06.2004, 14.07.2004, 30.07.2004, 31.08.2004, and 07.09.2004 regarding the above mentioned project. The Ministry of Environment and Forests has considered your application. It is noted that the project is for opening a new underground coal mine in Adriyala village, Manthani Mandal, Karimnagar Dist., Andhra Pradesh. The total project area is 363.90 ha and consists of a total lease area of 340.00 ha and an area of 23.90 ha falling outside the lease area. The total mining lease area of 340.00 ha consists of 120.60 ha of agricultural land, 39.40 ha of forestland, and 180.0 ha of other land. A total of 30.28 ha area which does not fall within forestland will be utilised for setting of the surface structures - shaft and service buildings (2.63 ha), approach road to the shaft (12.78 ha), diversion of nallah (12.15 ha), belt conveyor/transport road (2.72 ha). There are no ecologically sensitive areas within 10 km of the mine site. The Begumpet Reserve Forest is located at a distance of 6 km from the core zone. There is no displacement of populations involved. Mining will be by underground mechanised method and does not involve blasting. The River Godavari flows at a distance of 10 km from the mine site. Bokkala Vaggu flows at a distance of 100m from the lease boundary. It is proposed to modify the existing natural drainage pattern only during the 9th year of project life. Rated capacity of the mine is 2.144 million tonnes per annum (MTPA) of coal. It is proposed to transport 7150 TPD of coal from coal outlet for Adriyala Project (GDK-10A Incline) mine to RG-OC-II by a belt conveyor of 1.70 km length and thereafter to RG-OC-I CHP located at a distance of 12 km by belt conveyor. An estimated 23.37 million m³ of OB from the neighbouring RG OC-I mine located at a distance of 3.2 km will be stored in OB dumps in an area of 61.24 ha within the lease. Ultimate working depth is 644 m below ground level (bgl). Mining will intersect the groundwater aquifer found at a depth of 230-450 m bgl. Public Hearing was held on 20.11.2003. The A.P. State Pollution Control Board has issued the Consent to Establish on 12.02.2004. The Department of Coal has approved the Project on 08.08.1989. The capital cost of the project is Rs. 44,272 lakhs.



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2. The Ministry of Environment & Forests hereby accords environmental clearance for the proposed **Adriyala Underground Coal Mine** Project of M/s Singareni Collieries Company Ltd. involving a project area of 363.90 ha and consisting of lease area of 340.00 ha and an area of 23.90 ha falling outside the lease area for production of coal at a rated capacity of 2.144 MTPA of under the provisions of Environmental Impact Assessment Notification, 1994 and further amendments thereto subject to strict compliance of the terms and conditions mentioned below:

A. Specific Conditions

- (i) No developmental activity shall commence before the full acquisition (9.03 ha of approach road to the shaft and 10.05 ha for diversion of nallah) of 30.28 ha area involving surface structure has been completed.
- (ii) The annual rated capacity of production of coal shall remain 2.144 MTPA.
- (iii) The surface structures of the project shall cover only 30.28 ha which does not fall in forestland.
- (iv) Forestland (surface) shall not be disturbed by the mining operations.
- (v) Mine workings shall not extend beneath the 39.40 ha of forestland until forestry clearance has been obtained for its diversion.
- (vi) The diversion of Bokkala Vagu shall be done only after obtaining the clearance of the State Irrigation Department as per design approved by them taking into consideration all the factors such as peak flow rate, height of bund being higher than the HFL, strength of the protection bund as per laid down safety standards, etc. The entire cost of such diversion shall be borne by SCCL. No mining operation shall be undertaken in the section near the Bokkala Vagu until clearance of the State Government and necessary approvals including from the Directorate General of Mines Safety (DGMS) have been obtained in this regard.
- (vii) Appropriate measures for continuous supply of fresh air into the mine and removal of noxious and other harmful gases from the underground mine, usage of technology replacing drilling and blasting, wet cutting of coal, and measures for dust suppression, prevention of inundation and conservation of energy shall be adopted.
- (viii) Coal transportation by conveyor of length of 1.7 km from GDK-10A Incline (coal outlet for the mine) to RG OC-II belt shall have dust suppression systems in place. All loading and unloading and transfer points shall have dust suppression systems.
- (ix) OB from the adjoining RG OC-I Mine to be dumped in an area of 61.24 ha within the lease shall be stacked at the earmarked OB dumpsite(s) only. The total height of the dumps should not exceed 60m in two stages of 30 m each. The overall slope should not exceed 28 degree. A stone masonry retaining wall will be constructed along the toe of the dump. 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 and its Regional Office located at Bangalore on yearly basis.


- (x) Transportation of the OB from the RG OC-1 mine shall be in trucks covered by tarpaulin.
- (xi) Catch drains and siltation ponds of appropriate site should be constructed to arrest silt and sediment flows from soil, and OB. 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.
 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.
- (xii) Garland drains should be constructed around the mine to prevent mine inundation by ingress of surface run-off and around OB dumps. Garland drains (size, gradient & length) and sump capacity should be designed around the 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.
- (xiii) Pumps of adequate power and capacity shall be used for dewatering an estimated 199 gallons per minute of groundwater. The excess water shall be used in recharge of groundwater and suitable measures for recharge of ground water including rainwater harvesting should be taken up.
- (xiv) Report of the Study of Impact of Mining on Hydrogeology to be initiated by the State Ground Water Board shall be submitted immediately upon receipt to the CGWA. Based on the same, additional safeguard measures, if any required, shall be stipulated which shall be implemented by the proponents.
- (xv) A Study on the comprehensive water audit of all mines for finding out best possible recharge and utility operations shall be carried out and recommendations thereon implemented.
- (xvi) 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 should be done at least four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons. 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.
- (xvii) 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.
- (xviii) A green belt covering an area of 30.28 ha should be raised for suppression of dust by planting the native plant species around ML area, along ML boundary, roads, OB dump sites, etc. in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha.

- (xix) Report on the 3-year S&T Project jointly taken up by SCCL and the Central Mining Research Institute (CMRI), Dhanbad and funded by the Ministry of Coal to study the impact of mining operations on the hydrogeology, flora and fauna and forest cover of the Region shall be, upon completion, submitted to the MOEF.
- (xx) Subsidence Prediction Model shall be closely monitored and validated using actual data.
- (xxi) Sewage treatment plant should be installed for the colony. ETP should also be provided for workshop and CHP wastewater.
- (xxii) 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.
- (xxiii) 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.

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 State Pollution Control Board and the Central pollution Control Board once in six months.
- (v) Adequate measures should be taken for control of noise levels below 85 dBA in the work environment particularly from the main fan and ventilators. Workers engaged in operations of noise generating equipment should be provided with ear plugs/muffs.
- (vi) 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.
- (vii) Vehicles should be well maintained and regularly serviced. Vehicular emissions should be kept under control and regularly monitored.
- (viii) Acid mine water, if any, has to be treated and disposed of after conforming to the standard prescribed by the competent authority.
- (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.
- (xiii) 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.
- (xiv) 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.
- (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 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 and attract action under 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

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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, Karimnagar District, Andhra Pradesh.
9. E.I. Division, Ministry of Environment & Forests, New Delhi.
10. Guard File. 11. Monitoring File. 12. Record File.