

No.J-11015/306/2006-IA.II(M)
Government of India
Ministry of Environment & Forests

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

Dated: 11th June 2007

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

Sub: Koyagudam Opencast-II Coal Mine Project (2 MTPA) of M/s Singareni Collieries Company Ltd., located in village Koyagudam, Tehsil Tekulapalli, District Khammam, Andhra Pradesh- environmental clearance – reg.

Sir,

This has reference to letter No. 43011/11/2003-CPAM dated 17.08.2006 forwarding your application and your letter dated 22.01.2007 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 coal mine – Koyagudam Opencast-II (OCP) Coal Mine Project with a rated capacity of 2 million tonnes per annum (MTPA). The total lease area is 816.11 ha** of which 214.26 ha is agricultural land and 601.85 ha is forestland. Forestry clearance has been obtained for 138.07 ha of forestland and has been applied for 463.78 ha. Of the total lease area, 426.53 ha is area for excavation, 209.31 ha is area for OB dumps, 5.12 ha is for infrastructure, 4.25 ha is for roads, 161.84 ha is for safety barrier, and drainage and haul roads and 9.06 ha is for diversion of nala. The CHP of another mine (Koyagudam OCP-I) will be used for mineral processing. The buffer zone of Kinnerasani Wildlife Sanctuary falls at a distance of 6 km from the lease boundary. The mining lease forms a part of the Chatakonda Reserve forest and in the buffer zone. River Kinnerasani flows at a distance of 9.5km from the ML boundary. The mine is drained by a two streams – Parikala Vagu and Murreru Vagu in Pit-I and by another stream in northern part of Pits-II & III. The project involves modification of the natural drainage by diversion of the nalas and by construction of an embankment. Mining will be opencast by mechanised method and involves controlled blasting. **The rated capacity of the project is 2 million tonnes per annum (MTPA) of coal production.** Mineral transportation of **6060.60 TPD** of coal is by road from the ML to CHP of Koyagudam OCP-I for a distance of 35 km involving 40 trucks of 16T capacity each making 10 trips per day. The existing road network is inadequate and will be strengthened by laying an additional 3130m length of road. Ultimate working depth of the mine 140m below ground level (bgl). Water table is in the range of 2.35m – 6.43m bgl during pre-monsoon and 1.70- 5.80m bgl during post-monsoon in the study area. Mining will intersect water table. Clearance from the State Ground Water Department has been obtained on 19.05.2006. Peak water requirement is 1000 m³/d, which will be met from mine pit water. An estimated 260.20 Mm³ of OB including 8.48 Mm³ of topsoil will be generated in the life of mine; of which about 84.41% of the OB will be backfilled and the balance will be stored in one external OB dump of a max. height of 90m of 3 benches of 30m each. Backfilling will begin from the 4th year of mine operation. Project involves R&R of 2 villages – Yelagalamatla in the core zone involving 6 families and Darapadu village in the edge of the mine involving 66 families. Public Hearing was held on 18.06.2006. NOC has been obtained on 22.06.2005. Mining Plan has been approved by Ministry of Coal on 12.10.2006. Capital cost of the project is **Rs. 58.89 crores.**

2. The Ministry of Environment & Forests hereby accords environmental clearance for the above-mentioned **Koyagudam Opencast-II Coal Mine Project of M/s Singareni Collieries Company Ltd. for production of coal of 2 MTPA rated capacity over a lease area of 816.11 ha** under Section 12 of the Environmental Impact Assessment Notification, 2006 and subsequent

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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) Environmental clearance is subject to obtaining clearance under the Wildlife (Protection) Act, 1972 from the competent authority.
- (ii) Environmental clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs Union of India in Writ Petition (Civil) No. 460 of 2004 as may be applicable to this project.
- (iii) No mining operations shall be undertaken in the forestland until clearance has been obtained under the provisions of FC Act, 1980.
- (iv) It shall be ensured that the mining operations within the lease area, which is drained by a number of streams and nullahs carried out at safe distance as per statute and mine area is not inundated by peak flow of water from the natural drainage. It shall also be ensured that no OB from the mine operations outfall into these natural courses. The bund/embankment shall be compacted and stabilised with planattain and the slope of the embankment shall at least 2:1 towards the ML.
- (v) 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.
- (vi) OB should be stacked at the earmarked one external OB dumpsite within ML area and shall be a maximum height of 90m only consisting of 3 benches of 30m. The ultimate slope of the dump shall not exceed 28°. Backfilling shall begin at the end of 4th year in the decoaled area. Monitoring and management of 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.
- (vii) 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.
- (viii) 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.
- (ix) Crushers at the CHP should be operated with high efficiency bag filters, water sprinkling system should be provided to check fugitive emissions at loading points, conveyor system, haulage roads, and transfer points.
- (x) Road from ML to CHP shall be metal topped. Trucks transporting the mineral coal from the mine site to CHP shall be covered with tarpaulin and shall be optimally loaded.
- (xi) The additional road of a length of 3130m to be constructed for use in transporting mineral coal to CHP shall be metal topped
- (xii) Drills should be wet operated only.

- (xiii) 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.
- (xiv) Afforestation shall cover not less than 576.47 ha which includes reclaimed external OB dump (101.52 ha), reclaimed topsoil dump, backfilled area (107.79 ha), along ML boundary and green belt, along drains, along roads, along service buildings and safety zone within the lease bund, 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.
- (xv) A Progressive Mine Closure Plan shall be implemented by reclamation of quarry area of 107.79 ha which 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 226.33 ha of decoladed area being converted into a water reservoir, shall be gently sloped along the upper benches and stabilised and reclaimed with plantation and the reservoir peripherally fenced.
- (xvi) 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.
- (xvii) 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.
- (xviii) 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.
- (xix) 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.
- (xx) For monitoring land use pattern and for post mining land use, a time series of land use 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.
- (xxi) An STP shall be provided in the colony. ETP should also be provided for workshop and CHP wastewater.
- (xxii) 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.
- (xxiii) R&R of the two villages - Yelagalamatla and Darapadu village involving 72 families and 411 land oustees shall be completed in a time bound manner and shall be based on the norms of the State Govt. or the National R&R Policy whichever is higher.
- (xxiv) Consent to Operate shall be obtained for the rated capacity before starting mining operations after fulfilment of conditions imposed in NOC.

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, SO₂ and NO_x 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, SO₂ and NO_x) 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 19th May 1993 and 31st 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, 4th Floor, F-Wing, Kenriya Sadan Block, Kormangala, Bangalore – 560034.
4. Chairman, Andhra Pradesh State Pollution Control Board, 2nd 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, Khammam, Government of Andhra Pradesh.
8. Monitoring File 9. Guard File 10. Record File