

DGM (Exploration)



No.J-11015/12/2003.IA.II (M)  
Government of India  
Ministry of Environment & Forests

Paryavaran Bhawan,  
C.G.O. Complex, Lodi Road,  
New Delhi - 110 003

Dated: 17<sup>th</sup> November 2004

To  
The Managing Director,  
Hutti Gold Mines Co. Ltd.,  
No. 6/13, Gurappa Avenue,  
Primrose Road Cross,  
Bangalore - 560025.

Gm - 100000 (min)  
Mining Area - 2000 (M (LPP))

Sub: Expansion in production of gold ore from 0.078 MTPA to 0.15 MTPA (OC) to 0.10 MTPA (UG) in Uti Opencast & Underground Gold Mine of M/s Hutti Gold Mines Co. Ltd., near village Uti, Tehsil Deodurg, District Raichur, Karnataka - environmental clearance reg.

Sir,

This has reference to the Department of Mines, SSI & Textiles, Government of Karnataka's letter No. CI 23 MMM 2003 dated 22.03.2003 forwarding your application and your letters dated 13.02.2004, 27.04.2004, 07.06.2004, and 07.09.2004, on the subject mentioned above. The Ministry of Environment and Forests has examined the application. It has been noted that the proposal is for expansion of production of gold ore and for changing the method of mining from opencast to underground. The total lease area consists of 47.96 ha, which is a wasteland. There are no National Parks, Sanctuary, and Tiger Reserves within 10 km of the project site. The project does not involve displacement of people. Of the total lease area of 47.96 ha, 3.62 ha is active mining area, 6.25 ha is for OB dumps, 5.09 ha is for mineral storage, 3.0 ha is for infrastructure and 30.0 ha for green belt. Mining will be carried out by opencast method until the 6<sup>th</sup> year (year 2006) and thereafter by underground method. Targeted annual production capacity of the mine will increase from 0.079 million tonnes per annum (MTPA) to 0.15 MTPA (500 TPD) in opencast operations and decline to 0.10 MTPA (250 TPD) of gold ore after changing to UG operations. It is however noted that the gold ore production had already expanded to 0.145 MTPA. Average depth of groundwater is 10-18 m below ground level (bgl). Ultimate working depth is 200 m below ground level (bgl). Mineral processing of the gold ore is done in the Ore Processing Plant located at a distance of 22 km in the Hutti Gold Mine. Transportation of the ore shall be by tippers. Total water requirement is 80 m<sup>3</sup>/d of which 36 m<sup>3</sup>/d is for dust suppression, 20 m<sup>3</sup>/d is for green belt, 1.5 m<sup>3</sup>/d is for drinking and 5.5 m<sup>3</sup>/d is for workshop and domestic use. This will be met from groundwater (55 m<sup>3</sup>/d) and from mine pit/sump (25 m<sup>3</sup>/d). Approx. 0.523 million m<sup>3</sup> of OB will be generated from the opencast operations of which 0.331 mill. M<sup>3</sup> has been already accumulated. Backfilling is not proposed. Tailings generated over the life of mine will be backfilled in underground stopes. Consent to Establish has been obtained from the Karnataka State Pollution Control Board on 13.06.2003. Public hearing was held on 28.03.2003. IBM has approved the Mining Plan on 06.03.2003. Life of the mine is 11 years of which OC operations will be for 8 years. Lease period is for 20 years and will expire on 12.06.2011. The capital project cost is Rs. 86 lakhs.

22/11

2. The Ministry of Environment and Forests hereby accords environmental clearance to the above mentioned **Uti Opencast-cum-Underground Gold Mine** of M/s Hutti Gold Mines Company Ltd. for a total lease area of 47.96 ha, for expansion in production of gold ore from **0.079 MTPA to 0.15 MTPA (opencast) and 1.0 MTPA (underground)**, under the provisions of the Environmental Impact Assessment Notification, 1994 and its subsequent amendments subject to strict compliance of the terms and conditions mentioned below:

**A. Specific conditions**

- (i) The method of mining shall change from opencast to underground from the 6<sup>th</sup> year of operation when the rated capacity shall decrease from 0.15 MTPA to 1.0 MTPA.
- (ii) The ultimate working depth of opencast operations shall not exceed 56 m bgl.
- (iii) The area under opencast operations shall be stabilized and reclaimed.
- (iv) An estimated 0.523 million m<sup>3</sup> of OB to be generated over life of mine shall be stacked at the OB dump of 6.25 ha area at earmarked site only. Maximum height of the OB dumps shall not exceed 30m. The dump shall be terraced with each bench not exceeding 10m height and shall be stabilised and reclaimed.
- (v) Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from OB dumps. 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 mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material.
- (vi) Dimension of retaining wall at the toe of OB dumps and benches within the mine to check run-off and siltation should be based on the rainfall data.
- (vii) The UG mining will involve continuous supply of fresh air and removal of noxious and other harmful gases, measures for dust suppression, prevention of inundation and conservation of energy.
- (viii) Pumps of adequate power and capacity shall be used for dewatering mine water. 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.
- (ix) Subsidence Prediction Model shall be done and subsidence closely monitored and validated using actual data.
- (x) Workshop effluents shall be subject to oil and grease removal before discharge.
- (xi) Mine water discharge and/or any wastewater containing heavy metals should be properly treated to meet the prescribed standards before reuse/discharge.

7

Run-off from OB dumps and other surface run-off should be analysed for heavy metals and in case its concentration is found higher than the permissible limit, the water should be treated before discharge/reuse.

- (xiii) In-house pilot studies on the ecotoxicological effects of heavy metals found in mine discharge and tailings shall be conducted before their applicability on a large scale. The report of this study shall be submitted in a year of issuance of this letter.
- (xiv) In addition to 12.0 h of plantation already carried out, an area of 18.0 ha shall additionally be afforested in consultation with the local DFO/Agriculture Department. The density of trees should be around 2500 plants per hectare. This includes a green belt of sufficient width all around the ML area and on dumps by planting native plant species in consultation with local DFO/ Agriculture Department. At least 2000 plant species/ha should be planted.
- (xv) A detailed hydrogeological study on the impact of mining on the groundwater regime of the area shall be undertaken and a report submitted within six months of issuance of this letter.
- (xvi) Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells and constructing new piezometers. The monitoring should be done for quantity four times a year in pre-monsoon (April/May), monsoon (August), post-monsoon (November) and winter (January) seasons and for quality during May. Data thus collected should be submitted quarterly to the Ministry of Environment & Forests and to the Central Ground Water Authority.
- (xvii) The project authorities should meet water requirement of near by village(s), if any, in case the village wells go dry due to mine de-watering.
- (xviii) Vehicular emissions should be kept under control and regularly monitored. Tippers transporting the mineral ore shall be covered with tarpaulins. Dust suppression measures shall be taken in loading and offloading points, haul roads etc.
- (xix) "Consent to operate" should be obtained from SPCB before expanding mining activities.
- (xx) A detailed mine decommissioning plan should be submitted to the Ministry of Environment and Forests within 5 years of Mine Closure.
- (xxi) The Proponent shall earmark a separate fund of 1% of the total project cost for eco development measures including community welfare measures in the project area. The amount shall be deposited by the Company in a separate account within three months to be maintained by the Karnataka State Pollution Control Board. The action plan in this regard shall be submitted to the KSPCB as well as to MOEF RO, Bangalore within three months of issue of this letter. After approval of the action plan by the KSPCB, the amount deposited shall be released in two instalments to the project authorities based on progress of implementation. The KSPCB shall ensure that implementation of the action plan for eco-development measures is completed within two years from date of its approval by KSPCB. Further, the interest accrued during

4  
this period on the amount deposited by the proponent with the KSPCB shall be ploughed back to the same eco-development fund.

**B. General Conditions**

- (i) No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forests.
- (ii) No change in the calendar plan including excavation, quantum of mineral (gold ore) 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, SO<sub>2</sub>, and NOx 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.

Data on ambient air quality (RPM, SPM, SO<sub>2</sub>, NOx & CO) should be regularly submitted to the Ministry including its Regional office at Bangalore and the State Pollution Control Board / Central Pollution Control Board once in six months.

- (iv) Drills should be wet operated or with dust extractors and controlled blasting should be practiced.
- (v) Fugitive dust emissions from all the sources should be controlled regularly monitored and data recorded properly. Water spraying arrangements on haul roads, wagon loading, dumpers/ 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 waste water (workshop and waste water 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. Oil and grease trap should be installed before discharge of workshop effluents.
- (viii) Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board.
- (ix) 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 program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.

- (x) 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 Organization.
- (xi) 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.
- (xii) 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 officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
- (xiii) A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom and suggestion / representation has been received while processing the proposal.
- (xiv) The 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.
- (xv) 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 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> and a copy of the same should be forwarded to the Regional Office of this Ministry located at Bangalore.
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, Department of Environment & Forests, Government of Karnataka, Vidhana Soudha, Secretariat, Bangalore-560001.

- 6
2. Secretary, Mines, SSI & Textiles, Commerce & Industries Department, Government of Karnataka, Secretariat, M.S. Building, Bangalore.
  3. Chief Conservator of Forests, Ministry of Environment & Forests, Regional Office (SZ), E-3/240, Kendriya Sadan, IV Floor, E&F Wings, 17<sup>th</sup> Main Road, II Block, Koramangala, Bangalore-560034.
  4. Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi-110032.
  5. Chairman, Karnataka State Pollution Control Board, Public Utility Building, M.G. Marg, Bangalore- 560001.
  6. Member-Secretary, Central Ground Water Authority, A-2, W-3, K.G. Marg Barracks, New Delhi-110001,
  7. Secretary, Department of Mines, Ministry of Coal & Mines, Shastri Bhawan, New Delhi.
  8. Chief Controller of Mines, Indian Bureau of Mines, 'Indira Bhawan', Civil Lines, NAGPUR- 440 001.
  9. District Collector, Raichur, Government of Karnataka, Raichur 584005,
  10. E.I. Division, Ministry of Environment & Forests, New Delhi.
  11. Guard File.                      12. Monitoring File.                      13. Record File.