

5/2/08  
J-11015/484/2006- IA. II(M)  
Government of India  
Ministry of Environment & Forests

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Paryavaran Bhavan, C.G.O. Complex,  
Lodi Road, New Delhi-110003.  
Dated the January 28, 2008

To )  
The Director  
M/s Pushp Steels & Mining (P) Limited  
751, Ground floor, Kundewalan street,  
Ajmeri Gate, Dehi 110006

**Sub: Hahaladdi Iron Ore mine (ML area 66 ha and 0.40 MTPA of iron ore production) of M/s Pushp Steel and Mining (P) Ltd., at village Hahaladdi, Taluk Bhanupratappur, Dist. Kanker, Chhattisgarh – reg. environmental clearance.**

Sir,

This has reference to your letter No. nil dated 11.9.2007 on the subject mentioned above. The Ministry of Environment and Forests has examined the application.

2. It has been noted that the proposal is for environmental clearance for Hahaladdi iron ore mine located in district Kanker in Chhattisgarh. Production capacity of the mine will be 0.40 MTPA. Lease area of the mine is 66 ha, which is a forest land. Out of 66 ha of lease area, mining is proposed in an area of 61.5 ha and 4.5 ha area is for approach road. Forest clearance is awaited. Topography of the area is hilly. The elevation above mean sea level is 625 A MSL. No ecologically sensitive area such as National Park/Sanctuary/Biosphere reserve etc, is located within core and buffer zone of the mine lease. There is no population in the core zone, displacement of population and R&R is not involved. The total water requirement is 40 m<sup>3</sup>/day, will be met from the ground water source. Working is opencast by mechanized method involving drilling and blasting. The workings will go upto 590 amsl. Water table is 380 a MSL. Mining will not intersect the ground water table. About 0.220 million tonnes of solid waste will be generated which will be dumped in the earmarked area and dump will be stabilized with native species. It is noted that Public hearing of the project was held on 30.7.2007. IBM has approved the mining plan along with mine closure plan on 13.10.2006. Capital cost of the project is Rs. 240 lakhs.

3. Based on the information submitted by you, the Ministry of Environment and hereby accords environmental clearance for the above project under the provisions of the EIA Notification dated 14<sup>th</sup> September, 2006 subject to implementation of the following conditions/safeguards.

**A. Specific conditions**

- (i) Top soil shall be stacked properly with proper slope with adequate safeguards and shall be backfilled for reclamation and rehabilitation of mined out area.

- (ii) The waste shall be stacked at earmarked dump site(s) only and shall not be kept active for long period. The maximum height of the dump shall not exceed 30 m, each stage shall preferably be of 10 m and over all slope of the dump shall not exceed 28°. The mine pit area shall be reclaimed by back filling the waste in a phased manner. The backfilled area shall be scientifically vegetated with suitable native species to prevent erosion and surface run off. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests on six monthly basis.
- (iii) Garland drains shall be constructed to arrest silt and sediment flows from soil, and mineral dumps. The water so collected shall be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.

Garland drain (size, gradient and length) shall be constructed for both mine pit and for waste dump and sump capacity shall be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity shall also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and desilted at regular intervals.

- (iv) Trenches / garland drains shall be constructed at foot of dumps and coco filters installed at regular intervals to arrest silt from being carried to water bodies. Check dams and gully plugs shall be constructed across seasonal/perennial nallahs (if any) flowing through the ML area and silts arrested. De-silting at regular intervals shall be carried out.
- (v) Plantation shall be raised by planting the native species around the ML area, roads, OB dump sites etc. in consultation with the local DFO / Agriculture Department. The density of the trees shall be around 2500 plants per ha. Green belt development and selection of plant species shall be as per CPCB guidelines. Herbs and shrubs shall also form a part of afforestation programme besides tree plantation. Details of year wise afforestation programme including rehabilitation of mined out area shall be submitted to the Ministry within six months.
- (vi) The project authority shall implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.
- (vii) Drilling and blasting shall be by using dust extractors/wet drilling.
- (viii) Regular monitoring of ground water level and quality shall be carried out by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring shall be carried out four times in a year - pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regularly to MOEF, Central Ground Water Authority and Regional Director Central Ground Water Board.
- (ix) Prior permission from the competent authority shall be obtained for drawl of ground water ,if any.

- (x) The company shall either put up pellatisation plant or dispose off low grade ores/fines to prospective buyers and ensure that zero waste mining concepts is implemented.
- (xi) Conservation plan for wildlife shall be prepared in consultation with the Chief Wild Life Warden and duly vetted by the office of the CWLW for implementation. Necessary fund for implementation of the same shall be separately allocated.
- (xii) Land-use pattern of the nearby villages shall be studied and action plan for abatement and compensation for damage to agricultural land/ common property land (if any) in the nearby villages, due to mining activity shall be submitted to the Regional office of the Ministry within six months. Annual status of implementation of the plan and expenditure thereon shall be reported to the Ministry.
- (xiii) Need based assessment for the near by villages shall be conducted to study economic measures which can help in upliftment of poor section of society. Income generating projects/tools such as development of fodder farm, fruit bearing orchards, vocational training etc. can form a part of such programme. Company shall provide separate budget for community development activities and income generating programmes. This will be in addition to vocational training for individuals imparted to take up self employment and jobs.
- (xiv) The company shall explore the possibility of adoption of nearest two villages and ensure that civic amenities such as drinking water, schools, health centre, road infrastructure etc. are looked after.
- (xv) Rain water harvesting shall be undertaken to recharge the ground water table. Status of implementation shall be submitted to the Regional Office of the Ministry within six months.
- (xvi) Water to be supplied for drinking purposes shall be treated to meet the prescribed standards. Monitoring of water quality for drinking shall be undertaken on daily basis especially for fluoride & arsenic and records maintained.
- (xvii) Occupational health and safety measures for the workers including identification of work related health hazards, training on malaria eradication, HIV, and health effects on exposure to mineral dust etc. shall be carried out. The company shall engage a full time qualified doctor who is trained in occupational health. Periodic monitoring for exposure to mineral dust on the workers shall be conducted and records maintained including health records of the workers. Awareness programme for workers on impact of mining on their health and precautionary measures like use of personal equipments etc. shall be carried out periodically. Review of impact of various health measures undertaken (at interval of five years or less) shall be conducted followed by follow up action wherever required.
- (xviii) Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The vehicles shall be covered with a tarpaulin and shall not be overloaded.
- (xix) Maintenance of village roads through which transportation of ores will be undertaken shall be carried out by the company regularly at its own expenses.

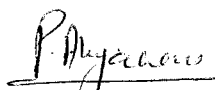
- (xx) A Final Mine Closure Plan, along with details of Corpus Fund, shall be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.

**B. General conditions**

- i. No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment & Forests.
- ii. No change in the calendar plan including excavation, quantum of mineral iron ore and waste shall be made.
- iii. Four ambient air quality-monitoring stations shall be established in the core zone as well as in the buffer zone for RPM, SPM, SO<sub>2</sub>, 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 and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.
- iv. Data on ambient air quality (RPM, SPM, SO<sub>2</sub>, NO<sub>x</sub>) should be regularly submitted to the Ministry including its Regional office located at Bangalore and the State Pollution Control Board / Central Pollution Control Board once in six months.
- v. Fugitive dust emissions from all the sources shall be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points shall be provided and properly maintained.
- vi. Measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. shall 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 shall be installed before discharge of workshop effluents.
- viii. Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.
- ix. A separate environmental management cell with suitable qualified personnel shall be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
- x. The project authorities shall inform to the Regional Office located at Bhopal regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- xi. The funds earmarked for environmental protection measures shall be kept in separate account and should not be diverted for other purpose. Year wise expenditure shall be reported to the Ministry and its Regional Office located at Bhopal.

- xii. The project authorities shall inform to the Regional Office located at Bhopal regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
  - xiii. The Regional Office of this Ministry located at Bhopal 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.
  - xiv. A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom 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, one of which shall be in the vernacular language of the locality concerned, within 7 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 also at web site of the Ministry of Environment and Forests at <http://envfor.nic.in> and a copy of the same shall be forwarded to the Regional Office of this Ministry located Bhopal.
5. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
6. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
7. 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.

Yours faithfully,

  
(Dr. P.L. Ahujarai)  
Director

Copy to:

1. Secretary, Ministry of Mines, Government of India Shastri Bhawan, New Delhi.
2. The Principal Secretary, Environment, R. No. 153 Dau, Kalyan Singh Bhawan , Secretariat, Government of Chhattisgarh, Raipur-492001
3. Secretary, Department of Mines and Geology, Government of Chhattisgarh, Raipur.
4. Chairman, Chhattisgarh Environment Conservation Board, 1, Tilak Nagar, Shiv Mandir Chowk , Main Road, Awanti Vihar, Raipur (C.G)
5. Secretary, Department of Forests, Government of Chhattisgarh, Raipur.
6. Chairman, Central Pollution Control Board, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
7. Chief Conservator of Forests (Central), Ministry of Environment & Forests, Regional Office, E - 3 / 240, Arera Colony Bhopal - 462 016.
8. Member Secretary, Central Ground Water Authority, A2, W3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.
9. Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440 001.
10. District Collector, Kanker district, Chhattisgarh.
11. Monitoring File/Guard File/ Record File.

  
(Dr. P. L. Ahujarai)  
Director