

**Speed Post**

**No. J-11015/258/2010-IA.II (M)**  
Government of India  
**Ministry of Environment and Forests**  
Impact Assessment Division

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

Dated: January 02, 2014

To,

**M/s Shri S. Venkata Narayana Reddy**  
S/o Shri Ramulu Reddy  
Balasubbaiah Nagar,  
Village and Mandal- Pamuru  
District-Prakasham  
Andhra Pradesh-523 108

**Subject: Manganese ore mining with production capacity of 5,400 TPA of manganese ore (ROM) by M/s Shri S. Venkata Narayana Reddy, located at Putikavalasa Village Hamlet of Diguvamedangi village, SaluruMandal, Vizianagaram District, Andhra Pradesh (21.77ha)- Environmental Clearance regarding.**

This has reference to your letter no. MOE&F/SVNR/09/2012-2013, dated 21.07.2012 and subsequent letter dated 02.02.2013 on the proposal of Manganese ore mining with production capacity of 5,400 TPA of manganese ore (ROM). The mine is located at Putikavalasa Village Hamlet of Diguvamedangi village, Saluru Mandal, Vizianagaram District, Andhra Pradesh. The project falls under Category "A" of the EIA, Notification, 2006, as the mine lease is located at a distance of 8.5 km from the Inter-state boundary of Orissa and Andhra Pradesh.

2. The Ministry had prescribed TORs for the proposal of Manganese ore mining with production capacity of 5,400 TPA of manganese ore (ROM) on 25.10.2010. The Proponent after conducting public hearing on 27.06.2012 submitted EIA/EMP report for seeking environmental clearance. The proposal for environmental clearance was considered in the 2<sup>nd</sup> Meeting of the Reconstituted Expert Appraisal Committee held during December 19<sup>th</sup>-21<sup>st</sup>, 2012. Further, the proposal was reconsidered in the 7<sup>th</sup> Meeting of the Expert Appraisal Committee held during May 15<sup>th</sup> -17<sup>th</sup>, 2013 wherein the Committee recommended the proposal for environmental clearance.

3. The Proposal is for opening of a new mine for production of 5,400 TPA of manganese ore. Mine working will be opencast manual. The mine lease area is 21.77ha which is Government wasteland. No forestland is involved. The Proponent reported that 1.7128ha area is required for ultimate pit, 12.039ha for undisturbed area, 0.250ha for roads and other infrastructure, 4.828ha for greenbelt development, 2.88ha for over burden dump yard and 0.06ha for mineral storage



yard. The mining plan was approved by the Indian Bureau of Mine Goa, Ministry of Mines vide letter no. AP/VZNR/MP/Mn-101/Hyd., dated 04.06.2010. Water requirement is 6 kld and will be sourced from surface water. The Gomukhi River is flowing at a distance of 1.2 km. Domestic waste water with a tune of 1.5 KLD will be generated which will be sent to septic tank followed by soak pit. Proponent reported that no waste water will be discharged outside the mine lease area.

4. The mine is located between Latitudes 18°38' 51.1" to 18°39' 30" N and Longitudes 83°08'34.2" to 83°08'48" E in Survey of India Topo Sheet No. 65/N2. There are no National Parks, Wild Life Sanctuaries, Tiger/Elephant Reserves and Notified Biospheres in the study area of 10 Km and No Schedule-I species were reported in the core zone. No court case is reported relating to the project.

5. The Baseline data was collected during October-December, 2010. AAQ, Water quality and Noise level parameters were found to be within permissible limits as prescribed by the CPCB. Ground Water quality monitoring at appropriate locations is in compliance with the prescribed norms.

6. The Public Hearing was held on 27.06.2012 under the Chairmanship of Shri Y. Narasimha Rao, District Revenue Officer & Additional District Magistrate. The representative from the Andhra Pradesh Pollution Control Board was also present. The issues raised by public were addressed by the project proponent with commitment for implementation. The capital cost of the project is Rs. 15 Lakhs. The environmental protection measures cost is Rs 6.0 Lakhs towards capital and Rs. 2.2 Lakh towards recurring expense/annum. PP reported that no court case/litigation is pending for the project or related activities. As reported by the Project Proponent, Rs 5 Lakhs earmarked for socio-economic welfare measures for the nearby villagers other than R&R plans.

7. The Ministry of Environment and Forests has examined the proposal in accordance with the Environmental Impact Assessment Notification, 2006 and further amendments thereto and hereby accords the environmental clearance under the provisions thereof to the above mentioned proposal of M/s Shri S. Venkata Narayana Reddy for opening of a new mine for production of 5,400 TPA of manganese ore (ROM) in the Mine lease area of 21.77 ha, located at Putikavalasa Village Hamlet of Diguvamedangi village, SaluruMandal, Vizianagaram District, Andhra Pradesh subject to compliance of the followings terms and conditions and environmental safeguards mentioned below:

**A. Specific conditions**

- (i) Environmental clearance is subject to obtaining clearance under the Wildlife (Protection) Act, 1972 from the competent authority, as may be applicable to this project.
- (ii) The project proponent shall obtain Consent to Operate from the State Pollution Control Board, Orissa and effectively implement all the conditions stipulated therein.
- (iii) Strict Implementation of following preventive measure shall be adopted to arrest the manganese poisoning:-



- (a) Adequate water sprinkling will be done in the mining area to suppress the toxic dust, fumes & manganese aerosols which contain the particles of manganese ore;
  - (b) In addition to the general protective equipment extra personal protection equipment like filter respirators will be provided to all the employees to control the inhalation of air borne particles of manganese and its ore in the entire mining area;
  - (c) Wet drilling will be done to control the generation of dust and fumes;
  - (d) Personal protective equipment like hand gloves, goggles, Helmets, safety shoes and work dress will be provided to all the employees;
  - (e) Adequate sanitary facilities, personal cleanliness, compulsory bathing after the working hours, change of clothes will be made mandatory among the mining employees;
  - (f) Eating of food, drinking of water will be avoided totally at other places in the mine area except at the specific areas which are designed for the specific purpose so that to avoid the food contamination in the mining area;
  - (g) The entire mining area will be kept well below the exposure limit of manganese dust i.e.  $5 \text{ mg/m}^3$ ;
  - (h) Periodic measurement of exposure levels should be performed and attention should be given to control the distribution of air borne manganese dust particles, and
  - (i) Periodical medical examination of the employees will be conducted regularly to screen the symptoms of manganese poisoning and its related medical advice will be strictly implemented and strict medical surveillance measures will be followed.
- (iv) The mining operations shall be restricted to above ground water table and it should not intersect groundwater table. In case of working below ground water table, prior approval of the Ministry of Environment and Forests and Central Ground Water Authority shall be obtained, for which a detailed hydro-geological study shall be carried out.
- (v) The project proponent shall ensure that no natural water course and/or water resources shall be obstructed due to any mining operations.
- (vi) The top soil, if any, shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time. The maximum height of the dumps shall not exceed 8m and width 20 m and overall slope of the dumps shall be maintained to  $45^\circ$ . The OB dumps should be scientifically



vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The entire excavated area shall be backfilled and afforested. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and its Regional Office located at Bangalore on six monthly basis.

- (vii) Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly. The drains, settling tanks and check dams of appropriate size, gradient and length shall be constructed both around the mine pit and over burden dumps to prevent run off of water and flow of sediments directly into the river and other water bodies and sump capacity should 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 should 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.
- (viii) Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of SPM and RSPM such as haul road, loading and unloading point and transfer points. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
- (ix) Regular monitoring of the flow rate of the springs and Gomukhi River flowing in and around the mine lease shall be carried out and records maintained. Regular monitoring of water quality upstream and downstream of water bodies shall be carried out and record of monitoring data should be maintained and submitted to the Ministry of Environment and Forests, its Regional Office, Bangalore, Central Groundwater Authority, Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board.
- (x) Regular monitoring of ground water level and quality shall be carried out in and around the mine lease 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 Ministry of Environment and Forests and its Regional Office, Bangalore, Central Ground Water Authority and Regional Director, Central Ground Water Board.



- (xi) The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and ground water for the project.
- (xii) 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 mineral transportation shall be carried out through covered trucks only and the vehicles carrying the mineral shall not be overloaded.
- (xiii) Blasting operation shall be carried out only during the daytime. Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented. Drills shall either be operated with dust extractors or equipped with water injection system.
- (xiv) Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.
- (xv) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area.
- (xvi) During initial mining stages, a green belt of 7.5m barrier all around the mine lease boundary shall be made. Subsequently to develop 50m barrier zone with 5-tier plantation inside mine lease in a progressive way near the active mining sites. Adequate plantation shall be raised in the ML area, haul roads, vacant area etc. Green belt development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO. Herbs and shrubs shall also form a part of afforestation programme besides tree plantation. The density of the trees shall not be less than 2500 plants per ha. The company shall involve local people with the help of self-help group for plantation programme. Details of year wise afforestation programme including rehabilitation of mined out area shall be submitted to the Regional Office of the Ministry every year.
- (xvii) The proponent shall complete all the tasks as per the action plan submitted with the budgetary provisions during the public hearing held on 27.06.2012.
- (xviii) The upliftment of scheduled caste/scheduled tribe population, specific programmes have been taken in to consideration specially with respect to education, health care, livelihood generation, infrastructure development & promotion of sports & culture for SC/ST population and that these will be intensified in future.
- (xix) 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 should be made without prior approval of the Ministry of Environment & Forests.
- (ii) No change in the calendar plan including excavation, quantum of mineral 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 RSPM, 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 (RSPM, 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 should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.
- (vi) Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in 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) 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.
- (ix) 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.

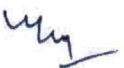


- (xii) The project authorities should inform to the Regional Office located at Bangalore regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- (xiii) The Regional Office of this Ministry located at Bangalore 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.
- (xiv) The project proponent shall submit six monthly report on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Bangalore, Central Pollution Control Board and State Pollution Control Board.
- (xv) The project proponent shall submit six monthly report on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Bangalore, Central Pollution Control Board and State Pollution Control Board.
- (xvi) 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.
- (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, 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 should be forwarded to the Regional Office of this Ministry located Bangalore.
8. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
9. Concealing factual data or submission of false/fabricated data and 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.
10. 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.
11. 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 made there under and also any other orders passed by the Hon'ble Supreme Court of India/ High Court of Andhra Pradesh/ National Green Tribunal and any other Court of Law relating to the subject matter.

12. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

  
(Dr. V.P. Upadhyay)  
Director

**Copy to:**

- 1). **The Secretary**, Ministry of Mines, Government of India Shastri Bhawan, New Delhi.
- 2). **The Secretary**, Department of Environment, Government of Andhra Pradesh, Hyderabad.
- 3). **The Secretary**, Department of Forests, Government of Andhra Pradesh, Hyderabad.
- 4). **The Secretary**, Department of Mines and Geology, Government of Andhra Pradesh, Hyderabad.
- 5). **The Secretary**, Department of Industries and Commerce (M-III), Govt. of Andhra Pradesh, Hyderabad.
- 6). **The Chief Conservator of Forests**, Regional Office (SZ), Kendriya Sadan, 4<sup>th</sup> Floor E&F, Wings 17<sup>th</sup> Main Road, 1 Block, Koramangala, Bangalore-560 034.
- 7). **The Chairman**, Andhra Pradesh State Pollution Control Board, Paryavaran Bhawan, A-3 Industrial Estate, Sanath Nagar, Hyderabad - 500 018
- 8). **The Member Secretary**, Central Ground Water Authority, A2, W- 3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.
- 9). **The Controller General**, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur- 440 001.
- 10). **The Regional Controller of Mines**, Indian Bureau of Mines, Goa- 403 602.
- 11). **The District Collector**, District Vizianagaram, State of Andhra Pradesh.
- 12). **Guard File**
- 13). **MoEF Website.**

  
(Dr. V.P. Upadhyay)  
Director