

No. J-11015/61/2012-IA.II (M)

Government of India
Ministry of Environment, Forests and Climate Change
Impact Assessment Division

Indira Paryavaran Bhavan,
Aliganj, Jor Bag Road,
New Delhi-110 003

Dated: 2nd February, 2015

To,

M/s Hindustan Copper Ltd.

Tamra Bhawan,
1, Ashutosh Chowdhary Avenue
Kolkata-700 019

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Subject: Enhancement of production capacity of Kolihan Copper Mine from 1.0 million TPA to 1.5 million TPA (ROM) by M/s Hindustan Copper Ltd., located at Village-Kolihan, Tehsil-Khetri, District Jhunjhunu, Rajasthan (163.23ha) -Environmental Clearance regarding.

Sir,

This has reference to your letter no. HCL/EIA-EMP/KCM, dated 04.03.2014 and subsequent letters dated 12.09.2014 and 13.11.2014 on the above mentioned proposal for Enhancement of production capacity of Kolihan Copper Mine from 1.0 million TPA to 1.5 million TPA (ROM). The mine lease area is located at Village-Kolihan, Tehsil-Khetri, District Jhunjhunu, Rajasthan.

2. The Ministry had prescribed TORs on 23.07.2012. The Proponent after conducting public hearing on 27.12.2013 submitted the EIA/EMP report for seeking environmental clearance. The proposal for environmental clearance was appraised by the Expert Appraisal Committee (EAC) in its meeting held during May 28-30, 2014 wherein the Committee deferred the proposal and sought certain information/clarification for further consideration. Further, the proposal was reconsidered by the EAC in its meeting held during November 13-14, 2014 wherein the Committee recommended the proposal for environmental clearance for enhancement of production capacity of Kolihan Copper Mine from 1.0 million TPA to 1.5 million TPA (ROM).

3. The proposal of M/s Hindustan Copper Ltd. is for enhancement of production capacity of Kolihan Copper Mine from 1.0 million TPA to 1.5 million TPA (ROM) of Copper Ore. The total mine lease area is 163.23ha. Out of this, 161.83ha is forest land and 1.40ha is barren land. MoEF&CC has granted forest clearance for 167.707ha (161.83 ha inside the mine lease and 5.877ha outside the Mine lease area) vide letter nos. 8-5/97-FC, dated 16.12.1997 and 10.02.1998. The latest mining plan for the project is approved by IBM vide letter no 584(4)(3) (427)/2012 dated 25.07.2013. The mine lease is valid up to 23.11.2016.

4. Mining method will be underground mechanized with transverse open blast hole stoping method using 165 mm dia. holes drilled from level to level/Drill Level to Extraction level. The Ore beneficiation [not under the present scope] shall be done at

KCC Concentrator, located adjacent to the production shaft of Khetri copper mine. From surface stockpile, ore will be transported by 7.4 km long bi-cable Aerial Ropeway to the Concentrator Plant. The life of the mine will be about 20 years. The anticipated waste generation till conceptual plan period shall be 5,38,883 m³, 50% waste rock will be dumped into underground open Stopes and remaining will be hoisted through shaft to ultimately dump into the dumping yard, situated nearby, over 1.64ha rocky barren land. The Project Proponent informed that they have made proper planning for storage of wastes to be lifted due to sinking of a new mine shaft. Project Proponent has engaged Indian School of Mines (ISM), Dhanbad to periodically monitor ground movement systematically through establishing subsidence pillars. The subsidence monitoring study at Kolihaan Copper Mine was conducted which *inter-alia* concluded that the variation of RLs are insignificant. There is a historic footprint of old workings at a specific hill region free from forest cover, water bodies, surface structures and habitants. Surface Subsidence at all the vulnerable areas will be closely monitored through a network of observation pillars, set up for the purpose, and Reports submitted to concerned authorities. Project Proponent reported that 1200 m³/day water will be required for the expansion of the project. As much as 50% of this demand has been planned to be met through recycling. About 200 m³/day of mine discharge / seepage water shall be collected and recycled back to mine for use. 400m³/day fresh water shall be continued to be drawn from existing tube wells located at Kharkhara. Project Proponent informed that permission from CGWA has been obtained for drawl of 400 m³/day of ground water.

5. The mine lease area is located at village Kolihaan, Tehsil Khetri, District Jhunjhunu, Rajasthan. The Latitude and Longitude of the site are North 28°00'41.79"N - 28°01'23.77" and East 75°45'50.99"E - 75°46'54.08" respectively on the toposheet no. 44P/16. Project Proponent reported that there is no Wildlife Sanctuary/Tiger Reserve/National Park located within the 10 km radius of mine lease area. Project Proponent has informed that the Conservation plan for Schedule-I species namely Peafowl was duly approved by the Chief Wild Life Warden forwarded by the O/o the Addl. Principal Chief Conservator of Forest & Chief, Wildlife Warden, Rajasthan, Jaipur vide letter no: F4(Ta)Mix/CWLW/2014 dated 09-09-2014.

6. It is submitted that the Ministry has earlier accorded the environmental clearance for the project vide MoEF letter no. J-11015/378/2007-IA.II (M) dated 04.03.2009 for the production capacity of 1.0 million TPA of copper ore. The certified Compliance Report was submitted by the Regional Office of the MoEF, dated 13.06.2013. The Committee deliberated on the Compliance Report in detail.

7. Baseline studies were carried out during September-November 2012. The Committee deliberated and was of the opinion that the base line data collected were within the permissible limits as prescribed by the CPCB. The Public Hearing was conducted on 27.12.2013 and presided over by Shri J.P. Meena, Chief Executive Officer (Mukhya Karyakari Adhikari) of District-Jhunjhunu. The representative of Regional Office from the Rajasthan State Pollution Control Board was present. The issues raised during the Public Hearing were discussed during the meeting.

8. The cost of the project is Rs. 314.48 Crores. The Proponent has earmarked Rs. 112 Lakh (capital) and Rs. 44 Lakhs per annum (Recurring cost) for Environmental Protection Measures. Proponent has earmarked Rs. 40 Lakhs per annum towards Socio-economic welfare measures. The Cost of mine closure is Rs. 7.3 Lakhs. Proponent reported that there is no Court case is pending against the Project.

9. 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 Hindustan Copper Limited for Enhancement of production capacity of Kolihan Copper Mine from 1.0 million TPA to 1.5 million TPA (ROM) of Copper Ore in the mine lease area of 163.23ha, located at Village-Kolihan, Tehsil-Khetri, District Jhunjhunu, Rajasthan** subject to compliance of the followings terms and conditions and environmental safeguards mentioned below:-

A. Specific conditions

- (i) No mining activities will be allowed in forest area for which the Forest Clearance is not available.
- (ii) Environmental clearance is subject to obtaining clearance, if any, under the Wildlife (Protection) Act, 1972 from the competent authority, as may be applicable to this project.
- (iii) The Project Proponent shall obtain Consent to Operate from the State Pollution Control Board, Rajasthan and effectively implement all the conditions stipulated therein.
- (iv) No mining activities will be commenced without necessary Water Approval from the Central Ground Water Authority.
- (v) Project Proponent shall monitor the metal concentration periodically in mine effluent and shall submit Reports to the Ministry of Environment, Forests & Climate Change and its Regional Office, Lucknow.
- (vi) Surface and ground water in and around mine lease area shall be monitored quarterly and Report shall submit Ministry of Environment, Forests & Climate Change and its Regional Office, Lucknow.
- (vii) Regular subsidence study will be carried out by any Institution of repute under existing Rules and Reports shall submit to Ministry of Environment, Forests & Climate Change and its Regional Office, Lucknow.
- (viii) Disaster management plan in respect of Rope way and the mine shall be prepared both On-site and Off-site and a copy shall submit to Ministry of Environment, Forests & Climate Change and its Regional Office, Lucknow.
- (ix) Waste generated shall be gainfully utilized as practicable.
- (x) Mitigation measures such as well-designed ventilation network within underground mine, provision of Personal Protective Equipment shall be ensured and necessary training and awareness programs for mine workers shall be undertaken.
- (xi) Implementation of Environment Management Policy of the Company w.r.t. judicious use of Mineral resources for growth & development synchronizing mining & environment with prosperity.
- (xii) The pollution due to transportation load on the environment will be effectively controlled & water sprinkling will also be done regularly. Vehicles with PUC only will be allowed to ply. The mineral transportation shall be carried out through covered trucks only and the vehicles carrying the mineral shall not be

overloaded. Water sprinkling should be increased at places like loading and unloading points & transfer point to reduce fugitive emissions.

- (xiii) There shall be planning, developing and implementing facility of rainwater harvesting measures on long term basis in consultation with Regional Director, Central Groundwater Board and implementation of conservation measures to augment ground water resources in the area in consultation with Central Ground Water Board.
- (xiv) Regular monitoring of ground water table should be carried out at the upstream and depth of water available in the dug well is to be measured. Monitoring should be done by establishing a network of existing wells and constructing new piezometers.
- (xv) Monitoring of Ambient Air Quality should be carried out based on the new Notification of 2009, as amended from time to time by the Central Pollution Control Board.
- (xvi) For the upliftment of scheduled caste/scheduled tribe population, specific programmes have to be taken 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.
- (xvii) The Project Proponent shall ensure that no natural watercourse and/or water resources shall be obstructed due to any mining operations.
- (xviii) Regular monitoring of the flow rate of the springs and perennial nallahs 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, Lucknow, Central Groundwater Authority, Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board.
- (xix) 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, Lucknow, Central Ground Water Authority and Regional Director, Central Ground Water Board.
- (xx) 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.
- (xxi) 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.

- (xxii) 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. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. Necessary allocation of funds for implementation of the conservation plan shall be made and the funds so allocated shall be included in the project cost. All the safeguard measures brought out in the Wildlife Conservation Plan so prepared specific to the project site shall be effectively implemented. Conservation plan for Schedule-I species namely Peafowl was duly approved by the Chief Wild Life Warden forwarded by the O/o the Addl. Principal Chief Conservator of Forest & Chief, Wildlife Warden, Rajasthan, Jaipur vide letter no: F4(Ta)Mix/CWLW/2014 dated 09-09-2014 shall be implemented and a copy of action plan shall be submitted to the Ministry of Environment, Forests & Climate Change and its Regional Office, Lucknow.
- (xxiii) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (xxiv) The proponent shall complete all the tasks as per the action plan submitted with the budgetary provisions during the public hearing held on 27.12.2013.
- (xxv) A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment, Forests and Climate Change 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 and Climate Change.
- (ii) No change in the calendar plan including excavation, quantum of mineral copper 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 PM₁₀, PM_{2.5}, SO₂ & NO_x 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 (PM₁₀, PM_{2.5}, SO₂ & NO_x) should be regularly submitted to the Ministry including its Regional office located at Lucknow and the State Pollution Control Board / Central Pollution Control Board once in six months.
- (v) The critical parameters such as PM₁₀ (size less than 10 micro meter), PM_{2.5} (size less than 2.5 micro meter), NO_x in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, pH and Total Suspended Solids (TSS))]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. The

circular No. J-20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment and Forests, which is available on the website of the Ministry www.envfor.nic.in shall also be referred in this regard for its compliance.

- (vi) 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.
- (vii) 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.
- (viii) Plantation shall be raised in a 7.5m wide green belt in the safety zone around the mining lease, backfilled and reclaimed area, around water body, along the roads etc. by planting the native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2500 plants per ha. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.
- (ix) 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 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.
- (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.
- (xi) 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.
- (xii) A separate environmental management cell with qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
- (xiii) 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 Lucknow.
- (xiv) The project authorities should inform to the Regional Office located at Lucknow, date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- (xv) The Regional Office of this Ministry located at Lucknow 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.
- (xvi) The project proponent shall submit six monthly report on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment, Forests and Climate Change, its Regional Office, Lucknow, Central Pollution Control Board and State Pollution Control Board.

- (xvii) The project proponent shall submit six monthly report on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment, Forests and Climate Change, its Regional Office, Lucknow, Central Pollution Control Board and State Pollution Control Board.
- (xviii) 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.
- (xix) 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.
- (xx) 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 at Lucknow.

10. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.

11. 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 the Environment (Protection) Act, 1986.

12. 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 Rajasthan and any other Court of Law relating to the subject matter.

13. 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.

Yours faithfully,

(Dr. R. B. Lal)
Scientist 'D'

Copy to:

- 1). The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi
- 2). The Secretary, Department of Mines & Geology, Government of Rajasthan, Secretariat, Jaipur
- 3). The Secretary, Department of Environment, Government of Rajasthan, Secretariat, Jaipur

- 4). The Chief Wildlife Warden of the State Govt. of Rajasthan, Jaipur
- 5). The Additional Principal Chief Conservator of Forests, Central Region, Ministry of Environment, Forests & Climate Change, B-1/72, Sector-A, Aliganj, Lucknow-226020.
- 6). The Member Secretary, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001.
- 7). The Chairman, Rajasthan State Pollution Control Board, 4, Institutional area, Jhalana, Doongri, Jaipur.
- 8). The Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur - 440 001
- 9). The District Collector, District Jhunjhunu, Rajasthan.
- 10). Guard File
- 11). MoEF website

(Dr. R. B. Lal)
Scientist 'D'