

No. J-11015/169/2009-IA.II(M)

Government of India

Ministry of Environment and Forests

IA Division

Paryavaran Bhawan

CGO Complex, Lodhi Road,

New Delhi-110 003

Dated the 17th March, 2010

To

The Associate Vice President

Hindustan Zinc Limited,

Rampura Agucha Mine,

P.O. Agucha-311 029

District Bhilwara,

Rajasthan

E-mail: rr.kumar@vedanta.co.in

Subject: Expansion of Maton Rock Phosphate Mining Project of M/s Hindustan Zinc Limited located in Village Maton, Tehsil Girwa, District Udaipur, Rajasthan -environmental clearance regarding.

Sir,

This has reference to your letter No.HZL./Maton/Env/Exp/2009/8940 dated 27.12.2008 and subsequent letters dated 17.02.2010 and 05.03.2010 on the subject mentioned above. The proposal was earlier prescribed Terms of Reference (TORs) by the Ministry of Environment and Forests on 17.08.2009 for undertaking detailed EIA study for the purpose of obtaining environmental clearance. The proposal is for renewal of mine lease, which fall due on 16th March, 2010 and enhancement of production of rock phosphate from 60,000 tonnes per annum(TPA) to 1,80,000 TPA. The total mine lease area of the project is 143.13ha, out of which 28.69ha is an agricultural land and 114.44ha is others (private land). No forestland is involved. In addition, an area of 80.18 ha of land has been acquired outside the mine lease for the purpose of over burden (OB) dumps. Area proposed for mining 25.6ha, an area of 11.25ha is kept for over burden dumps, 1.32ha for mineral storage, 4.42ha for infrastructure, 1.42ha for roads, 48ha for green belt and 51.12ha is others. The Ahar River is flowing in the buffer zone of the mine at a distance of 0.7km towards North from the mine lease boundary. In addition, the Udaisagar Pond and the Bagdara Talav are located in the buffer zone of the mine at a distance of 1.4km (NE) and 4.4km (SE) respectively from the mine lease boundary. No National Park/Wildlife Sanctuary/biosphere Reserve/Tiger Reserve/ Elephant Reserve etc. are reported to be located in the core and buffer zone of the mine and that the area does not report to form corridor for Schedule-I fauna. In support of this a letter from the DCF, Udaipur (North) dated 14.12.2009 has been provided. Nine reserve forests (RFs) namely

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Umra RF(0.1km SW), Segaria RF (0.2km NE), Hingalshia RF (1.4km N), Bagdara RF (2.1km SE), Hora RF (2.5km W), Amarbir RF (4.6km ESE), Baramangra RF(6.0km N), Kantia RF(7.4km NNE) and Sant RF(9.0km ESE) are reported to be located in the buffer zone of the mine. The mine working will be opencast by mechanized method involving drilling and blasting. The targetted production capacity of the mine is 1,80,000TPA(0.18million TPA) of rock phosphate and the life of mine is 20years. Approximately 600TPD of mineral will be transported through the road. The topography of the area is undulated and hilly at an elevation of 568m AMSL. The present working depth of mine is 590m RL (548m AMSL) and the ultimate working depth of mine will be 520m RL (478m AMSL). The groundwater table is reported at 527m RL. The mine working will intersect the groundwater table. The peak water requirement of the project is estimated as 200m³ per day, which will be obtained from the ground water. It has been reported that there is no population in the core zone, therefore, displacement of population and R&R has not been envisaged. It has been estimated that a total of 7.8million tonnes of OB has already been accumulated in the form of waste dump and another 71million tonnes of OB is proposed to be generated during the remaining life of the mine. The total waste will be disposed off in the form of three external OB dumps covering an area of 80.25 ha. The projected height of the dump is 50m. Plantation will be raised in an area of 122.3ha at the end of the mine life and there will be no water body left during the post mining stage. The Public hearing of the project was held on 15.12.2009, for production of 1,80,000TPA of rock phosphate over mine lease area of 143.13ha. The Indian Bureau of Mines had approved Mining Scheme of the project on 10.11.2009 for lease area of 143.13ha. The Supdt. Mining Engineer, Udaipur, Department of Mines and Geology, Government of Rajasthan vide letter No. AA.KHA.AA./UDAI/CC-UDAI/M.L.-6/89/825 dated 10.06.2009 stated that the said mine lease does not get covered by the Order of the Hon'ble Supreme Court in Contempt Petition no. 412 in I.A. No.833 in I. A. No. 828 as the first renewal of the mine lease was done on 03.09.1992. The capital cost of the project is Rs.40Crores and the capital cost for the environmental protection measures is proposed as Rs.100Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs.11.5Lakhs. It was categorically stated by the proponent that there is no litigation /court case against the project and no directions have been passed against the project by any court of law.

2. The Ministry of Environment and Forests has examined the application in accordance with the EIA Notification, 2006 and hereby accords environmental clearance under the provisions thereof to the above mentioned Maton Rock Phosphate Mining Project of M/s Hindustan Zinc Limited for an annual production capacity of 1,80,000tonnes (0.18million tonnes) by the opencast mechanised method involving total mining lease area of 143.1300ha, subject to implementation of the following conditions and environmental safeguards.

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A. Specific conditions

- (i) Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India in Contempt Petition (C) No. 412/2004 in IA No. 833 in Writ Petition (C) No. 202 of 1995, as may be applicable to this project.
- (ii) The environmental clearance is subject to approval of the State Land Use Department, Government of Rajasthan for diversion of agricultural land for non-agricultural use.
- (iii) The project proponent shall obtain Consent to Establish and Consent to Operate from the Rajasthan State Pollution Control Board and effectively implement all the conditions stipulated therein.
- (iv) The project proponent shall ensure that no natural watercourse and/or water resources are obstructed due to any mining operations. Adequate measures shall be taken for protection of the 1st order and 2nd order streams, if any emanating/ passing through the mine lease during the course of mining operation.
- (v) The mine working will be restricted to above water table. For working below water table, a detailed hydro-geological study shall be carried out taking into account the mine water discharge, management of discharged water and prior approval of CGWA shall be obtained. The hydro-geological study report along with approval of CGWA will be submitted to the Ministry of Environment and Forests for reviewing the conditions of environment clearance and stipulation of additional conditions, if any, as may be required.
- (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.
- (vii) The over burden (OB) generated during the mining operations shall be stacked at earmarked dump(s) site only and it should not be kept active for a long period and their phase-wise stabilization shall be carried out. There shall be three external dump(s). The OB dump(s) 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. Dump stability study shall be carried out in next six months before attaining the ultimate dump height of 50m. The study shall be carried out by one of the reputed organizations like CMFRI and report submitted to the Ministry of Environment and Forests. 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 and its Regional Office located at Lucknow on six monthly basis.

- (viii) Catch drains and siltation ponds of appropriate size shall be constructed to arrest silt and sediment flows from mine working, soil, OB and mineral dumps to prevent run off of water and flow of sediments directly into the Ahar River, the Udaisagar pond, the Bagdara Talav 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 the monsoon and maintained properly.

Garland 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 Ahar River, the Udaisagar pond, the Bagdara Talav 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.

- (ix) Dimension of the retaining wall at the toe of the over burden dump and the OB benches within the mine to check run-off and siltation shall be based on the rain fall data.
- (x) Plantation shall be raised in an area of 122.3ha including a 7.5m wide green belt in the safety zone around the mining lease by planting the native species around over burden dumps, along the roads etc. in consultation with the local DFO/Agriculture Department. The density of the trees should be around 1500 plants per ha. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within five year.
- (xi) Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as around crushing and screening plant, loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
- (xii) The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.

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- (xiii) 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 installing new piezometers during the mining operation. The periodic monitoring [(at least four times in a year- pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January); once in each season)] shall be carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be sent regularly to the Ministry of Environment and Forests and its Regional Office Lucknow, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity, necessary corrective measures shall be carried out.
- (xiv) Appropriate mitigative measures shall be taken to prevent pollution of the Ahar River in consultation with the State Pollution Control Board.
- (xv) The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water required for the project.
- (xvi) Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with the Regional Director, Central Ground Water Board.
- (xvii) 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 the covered trucks only and the vehicles carrying the mineral shall not be overloaded.
- (xviii) Controlled blasting shall be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.
- (xix) The project proponent shall take all mitigative measures during the mining operation to ensure that the buildings/ structures in the nearby areas shall not be affected due to blasting.
- (xx) Drills shall either be operated with dust extractors or equipped with water injection system.
- (xxi) Mineral handling area shall be provided with the adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.

- (xxii) Sewage treatment plant shall be installed for the colony. ETP shall also be provided for the workshop and wastewater generated during the mining operation.
- (xxiii) 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.
- (xxiv) 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.
- (xxv) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered flora and fauna 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. A copy of action plan shall be submitted to the Ministry of Environment and Forests and its Regional Office, Lucknow.
- (xxvi) The critical parameters such as such as RSPM (Particulate matter with size less than 10micron i.e., PM₁₀), 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.
- (xxvii) 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.

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.

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- (ii) No change in the calendar plan including excavation, quantum of mineral rock phoshate 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 (Particulate matter with size less than 10micron i.e., PM₁₀), NOx 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 (Particulate matter with size less than 10micron i.e., PM₁₀), & NOx should be regularly submitted to the Ministry of Environment and Forests including its Regional office located at Lucknow 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 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.
- (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.

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.

- (ix) 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.
- (x) 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 of Environment and Forests and its Regional Office located at Lucknow.

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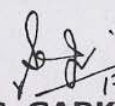
- (xi) The project authorities should inform to the Regional Office located at Lucknow regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- (xii) The Regional Office of this Ministry located at Lucknow shall 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.
- (xiii) The project proponent shall submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the Ministry of Environment and Forests, its Regional Office Lucknow, the respective Zonal Office of Central Pollution Control Board the State Pollution Control Board. The proponent shall upload the status of compliance of the EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the Ministry of Environment and Forests, Lucknow, the respective Zonal Office of Central Pollution Control Board and the State Pollution Control Board.
- (xiv) A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad/ Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.
- (xv) The State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and the Collector's office/ Tehsildar's Office for 30 days.
- (xvi) The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the Regional Office of the Ministry of Environment and Forests, Lucknow by e-mail.
- (xvii) 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.

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

4. 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.

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 made thereunder 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.

6. Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Authority Act, 1997.


 (SATISH C. GARKOTI)
 Additional Director (S)

Copy to:

- (i) The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
- (ii) The Department of Mines & Geology, Government of Rajasthan, Secretariat, Jaipur.
- (iii) The Secretary, Department of Environment, Government of Rajasthan, Secretariat, Jaipur.
- (iv) The Chief Wildlife Warden, Government of Rajasthan, Van Bhavan, Vaniki Path, Jaipur - 302 005.
- (v) The Chief Conservator of Forests, Central Region, Ministry of Environment and Forests, B-1/72, Sector-A, Aliganj, Lucknow-226020.
- (vi) The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office complex, East Arjun Nagar, New Delhi-1100032.
- (vii) The Member Secretary, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001.

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- (viii) The Chairman, Rajasthan State Pollution Control Board, 4, Institutional area, Jhalana, Doongri, Jaipur.
- (ix) The Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440 001.
- (x) The District Collector, Udaipur District, Rajasthan.
- (xi) EI Division, Ministry of Environment and Forests, Paryavaran Bhavan, C. G. O. Complex, Lodi Road, New Delhi-110 003.
- (xii) Monitoring File.
- (xiii) Guard File.
- (xiv) Record File.


(SATISH.C.GARKOTI)
Additional Director(S)

