

No.J-11015/453/2006-IA.II (M)

Government of India
Ministry of Environment & Forests

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

Dated the 5th January, 2009

To

M/s Udaipur Cement Works Limited
P.O. Shripatinagar,
Udaipur,
Rajasthan
E-mail: lakshmi_cement@lc.jkmail.com

Subject: Expansion of Daroli Limestone Mine-2 Mining Project (ML. No. 64/79) of M/s Udaipur Cement Works Limited located in Village Daroli, Tehsil Vallabhnagar District Udaipur, Rajasthan -environmental clearance regarding.

Sir,

This has reference to your letter No. 'NIL' dated 31.05.2008 and subsequent letters dated 20.08.2008 and 27.08.2008 on the subject mentioned above. The proposal is for enhancement of production of limestone from 200,000tonnes per annum(TPA) (0.2million TPA to 1.56million TPA). The total mine lease area of the project is 213.33ha, out of which 23.8ha is an agricultural land and 189.53ha is wasteland. No forestland is involved. The mine lease area is divided into two blocks of 104ha and 109.33ha respectively. Area proposed for mining is 118ha, an area of 6ha is kept for inter burden dumps, 0.25ha for infrastructure, 1.5ha for roads, 56ha for green belt and 31.58ha is others (kept intact). The National Highway 76 (NH 76) is passing through the mining lease. The Berach River is flowing in the buffer zone of the mine at a distance of 5km from the mine lease boundary. The Daroli tank is also located in the buffer zone of the mine at a distance of 3.1km from the mine lease boundary. There is no water body present in the lease area. 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. The Anand Forest (open jungle), Panwaria RF and Nahar Magra RF are located in the buffer zone of the mine at a distance of 3.2km, 8km and 9.6km respectively from the mine lease boundary. The mine working will be opencast by mechanized method involving drilling and blasting. The targetted production capacity of the mine is 1.56million TPA of limestone and the life of mine is 15years. Mineral will be transported through the road (40%) and the ropeway(60%).The topography of the area is undulated at an elevation

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above mean sea level ranging from 498m-530m. The general ground level is at 515m RL. The ultimate working depth of mine will be 480m RL. The groundwater table varies from 485m AMSL to 488m AMSL during pre-monsoon and post monsoon. The mine working will intersect the groundwater table after the 5th year. A hydro-geological report has been submitted in this regard. The peak water requirement of the project is estimated as 120m³ per day, out of which 5m³ per day will be obtained from the ground water and remaining 115m³ per day from the mine water. A part of the mine water discharge will be reused for recharging of groundwater and part of it will be supplied to the villagers through PHED and also to meet the water requirement of a cement plant, captive power plant and mine usage. There is no population in the core zone, therefore, displacement of population and R&R is not involved. It is estimated that 8.4lakh m³ of inter burden will be generated during the mine life, which will be dumped outside. No backfilling is proposed. There will be one external inter burden dump having maximum height of 18m with two terraces of 9m each and the overall slope of dump will be 28°. Plantation will be raised in an area of 62ha at the end of the mine life and an area of 118ha will be left as water reservoir during the post mining stage. The public hearing of the project was held on 18.02.2008 combinedly for Daroli-I and Daroli-II mine for production of 3.2million TPA from both the mines (Daroli-I:1.64million TPA involving lease area of 7.04.944ha and Daroli-II:1.56million TPA involving lease area of 213.33ha). The Indian Bureau of Mines had approved mining plan including progressive mine closure plan of the project on 05.12.2006 for lease area of 213.33ha. The proponent has provided a copy of letter No.KHA.AA/UDAI/CC-1/ML-23/2001/276 dated 09.06.2008 from the Mining Engineer, Udaipur stating that the proposed mine lease does not fall in the Aravali Hills. The capital cost of the project is Rs.4Crores and the capital cost for environmental protection measures is proposed as Rs.26.5Lakhs. The annual recurring cost towards environmental protection measures is proposed as Rs.7.75Lakhs.

2. The Ministry of Environment and Forests has examined the application as per the EIA Notification 2006 and hereby accords environmental clearance under the provisions thereof to the above mentioned Daroli Limestone Mine-2 Mining Project (ML. no. 64/79) of M/s Udaipur Cement Works Limited for an annual production capacity of 1.56million tonnes of limestone by opencast mechanized method involving total mine lease area of 213.33ha, subject to implementation of the following conditions and environmental safeguards.

A. Specific Conditions

- (i) The project proponent shall obtain Consent to Establish from the Rajasthan State Pollution Control Board and effectively implement all the conditions stipulated therein.

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- (ii) The environmental clearance is subject to approval of the State Landuse Department, Government of Rajasthan for diversion of agricultural land for non-agricultural use.
- (iii) Mining shall be carried out in accordance with the provisions of various acts and rules leaving the safety distance from the National Highway 76 (NH 76) passing through the mine lease.
- (iv) 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.
- (v) The project proponent shall ensure that no natural watercourse and/or water resources shall be obstructed due to any mining operations.
- (vi) The inter burden generated during the mining operations shall be stacked at earmarked dump site only and it should not be kept active for a long period of time and its phase-wise stabilization shall be carried out. There shall be one external dump. The maximum height of the dump shall be 18m having two terraces of 9m each, and the over all slope of the dumps shall be maintained to 28°. The inter burden dump 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 and its Regional Office located at Lucknow on six monthly basis.
- (vii) Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and inter burden dump(s) to prevent run off of water and flow of sediments directly into the Berach River, the Daroli tank 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 the inter burden dumps to prevent run off of water and flow of sediments directly into the Berach River, the Daroli tank 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.

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- (viii) The void left unfilled in an area of 118ha shall be converted into water body. The higher benches of excavated void/mining pit shall be terraced and plantation done to stabilize the slopes. The slope of higher benches shall be made gentler for easy accessibility by local people to use the water body. Peripheral fencing shall be carried out along the excavated area.
- (ix) Dimension of the retaining wall at the toe of the inter burden dump and the inter burden benches within the mine to check run-off and siltation shall be based on the rain fall data.
- (x) Regular monitoring of the Daroli tank shall be carried out and records maintained.
- (xi) Plantation shall be raised in an area of 62ha including a 7.5m wide green belt in the safety zone around the mining lease, inter burden dump, mine benches and the around water body, around Daroli tank, roads etc. by planting the native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 1500 plants per ha.
- (xii) 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.
- (xiii) The project proponent shall take adequate environmental safeguard measures to protect the Berach River flowing in the buffer zone of the mine lease and regularly monitor the water quality upstream and downstream of the River and record of monitoring data should be maintained and submitted to the Ministry of Environment and Forests, its Regional Office, Lucknow, the Central Groundwater Authority, the Regional Director, Central Ground Water Board, the State Pollution Control Board and the Central Pollution Control Board.
- (xiv) 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.
- (xv) 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

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(January) 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.

- (xvi) The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of ground water, if any, for the project.
- (xvii) Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with the Regional Director, Central Ground Water Board.
- (xviii) Appropriate mitigative measures shall be taken to prevent pollution of the Berach River, in consultation with the State Pollution Control Board.
- (xix) 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.
- (xx) No blasting shall be carried out after the sunset. 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.
- (xxi) Drills shall either be operated with dust extractors or equipped with water injection system.
- (xxii) Mineral handling area shall be provided with 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.
- (xxiii) Consent to operate shall be obtained from the State Pollution Control Board prior to start of enhanced production from the mine.
- (xxiv) The project authorities should undertake sample survey to generate data on pre-project community health status within a radius of 1 km from proposed mine.
- (xxv) 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.

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- (xxvi) Sewage treatment plant shall be installed for the colony. ETP shall also be provided for the workshop and the wastewater generated during the mining operation.
- (xxvii) 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.
- (xxviii) Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land use pattern and report submitted to the Ministry of Environment and Forests and its Regional Office, Lucknow.
- (xxix) 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.
- (ii) No change in the calendar plan including excavation, quantum of mineral limestone and waste should be made.
- (iii) Conservation measures for protection of flora and fauna in the core & buffer zone shall be drawn up in consultation with the local forest and wildlife department.
- (iv) Four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RSPM, SPM, 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.
- (v) Data on ambient air quality (RSPM, SPM, 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.

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- (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) 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.
- (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 Lucknow.
- (xii) 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.
- (xiii) 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.

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- (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, Lucknow, 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, Lucknow, 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 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 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 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 Conservator of Forests, Central Region, Ministry of Environment and Forests, B-1/72, Sector-A, Aliganj, Lucknow-226020.
- (v) The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office complex, East Arjun Nagar, New Delhi-1100032.
- (vi) The Member Secretary, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001.
- (vii) The Chairman, Rajasthan State Pollution Control Board, 4, Institutional area, Jhalana, Doongri, Jaipur.
- (viii) The Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440 001.
- (ix) The District Collector, Udaipur District, Rajasthan.
- (x) EI Division, Ministry of Environment and Forests, Paryavaran Bhavan, C. G. O. Complex, Lodi Road, New Delhi-110 003.
- (xi) Monitoring File.
- (xii) Guard File.
- (xiii) Record File.