

No. J-11015/148/2006-IA.II(M)  
Government of India  
Ministry of Environment & Forests

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

Dated the 10<sup>th</sup> October, 2007

To,  
M/s Gujarat Ambuja Cements Ltd.  
Unit-Rabriyawas,  
P.O. Rabriyawas, Tehsil Jaitaran  
District Pali,  
RAJASTHAN-306 709

**Subject: Expansion of RAS-II Limestone Mining Project of M/s Gujarat Ambuja Cements Limited located in Village(s) Balara, Rabriyawas, Ras (Kerpura & Patan), Tehsil Jaitaran, District Pali, Rajasthan -environmental clearance reg.**

Sir,

This has reference to your letter No. 'Nil' dated 27.04.2006 and subsequent letters dated 19.06.2006, 07.10.2006, 24.01.2007, 27.02.2007, 26.04.2007, 10.05.2007 and 25.06.2007 on the subject mentioned above. The proposal is for grant of environmental clearance for enhancement of production of limestone from 2.3 million tonnes per annum (millionTPA) to 3.6 million TPA to meet the requirement of their captive cement plant having a clinker capacity of 2.4 million TPA. The earlier environmental clearance accorded was in the name of M/s DLF Cement Ltd. The total mine lease area of the project is 803ha, out of which 691.37ha is government wasteland and 111.63ha is private agricultural land. No forestland is involved. Area proposed for mining is 175.41ha, an area of 27.32ha is kept for OB dumps, 0.3ha for infrastructure, 9.95ha for haul roads, 49.19ha for plantation and 540.83ha is undisturbed area. A seasonal river namely Lilri river flows at a distance of 2 km from the mine lease. No ecologically sensitive area such as National park/wildlife sanctuary/biosphere reserve etc. is reported to be located in the core and buffer zone of the mine and also the area does not form corridor for Schedule-I fauna. The working will be opencast by mechanised method involving blasting. The targetted production capacity of the mine is 36,00,000TPA (3.6million TPA) production of limestone and life of mine will be 25years. Approximately 12000TPD of mineral will be transported through 0.4km long conveyor. The topography of the area is hilly at an elevation ranging from 360m to 445m AMSL. The present working depth of mine is 386m AMSL in western ridge and 394m AMSL in eastern ridge and ultimate working depth of mine will be 360m AMSL. The water table ranges from 12.8m to 45.8m bgl (367m -334m RL) in core zone and 9m to 45.5m bgl (371m to 346m RL) in buffer zone.

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334m RL) in buffer zone (pre-monsoon) and 9.8m to 43.5m bgl(370m -336m RL) in core zone and 6.5m to 42m bgl(373m-338m RL)in buffer zone (post-monsoon). Working will not intersect ground water table. There is no population in the core zone, therefore, no displacement of population and R&R is involved. The water requirement of the project is estimated as 400 m<sup>3</sup> per day, which will be met from groundwater. The area does not fall in critical zone from the point of view of groundwater extraction. Approximately 36,000m<sup>3</sup> per month of inter burden (calc-gneiss,schist, pgemitite) will be generated which will be partly used for backfilling and partly for external dumping. It is estimated that a total of 32.97million tonnes of waste will be generated during the mine life, which will be partly backfilled and partly disposed of in the form of external dump. A total of 1.92million m<sup>3</sup> of inter burden has already been accumulated and another 12.21 million m<sup>3</sup> of inter burden is proposed to be generated during the entire life of the mine. Backfilling will start from the 10<sup>th</sup> year onwards. There will be four external over burden dumps with maximum height of 20m. At the end of the mine life, an area of 27.32ha will remain as waste dump, which will be afforested. Plantation will be raised in an area of 203.12ha at the end of mine life and an area of 48.8ha will be developed as water body at the post mining stage. NOC from the Rajasthan State Pollution Control Board obtained on 05.04.2006 for increasing limestone production capacity from 2.3MTPA to 3.6MTPA. Public hearing of the project was held on 24.03.2006 for enhancement of production of limestone from 2.3MTPA to 3.6MTPA. The Indian Bureau of Mines had approved mining scheme of the project on 22.03.2006 for lease area of 803ha. The capital cost of the project is Rs.31Lakhs.

2. The Ministry of Environment and Forests has examined the application in accordance with Section 12 of the EIA Notification 2006 read with para 2.1.1(i) of Circular No.J-11013/41/2006-IA.II(I) dated 13.10.2006 and hereby accords environmental clearance under the provisions thereof to the above mentioned RAS-II Limestone Mining Project of M/s Gujarat Ambuja Cements Limited for an annual production capacity of 36,00,000tonnes(3.6million tonnes) production of limestone by opencast mechanised method involving total lease area of 803ha subject to implementation of the following conditions and environmental safeguards.

#### **A. Specific conditions**

- (i) Environmental clearance is granted subject to final order of Hon'ble Supreme Court of India in Contempt Petition (C) 412/2004 in IA No. 833 in Writ Petition (C) No. 202 of 1995, as may be applicable to this project.
- (ii) All the conditions stipulated by the State Pollution Control Board in their NOC should be effectively implemented.

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- (iii) Topsoil, if any, shall be stacked with proper slope at earmarked site(s) only with adequate measures and should be used for reclamation and rehabilitation of mined out areas.
- (iv) The project proponent shall ensure that no natural watercourse shall be obstructed due to any mining operations.
- (v) The inter burden and other waste generated shall be stacked at earmarked dump site(s) only and should not be kept active for long period. The total height of the dumps shall not exceed 20m in two terraces of 10m each and the over all slope of the dump shall be maintained to  $28^{\circ}$ . The backfilling shall start from the 10<sup>th</sup> year onwards. The inter burden dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests and its Regional Office, Lucknow on six monthly basis.
- (vi) The void left unfilled in an area of 48.8ha 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.
- (vii) Catch drains and siltation ponds of appropriate size should be constructed for the working pit, inter burden and mineral dumps to arrest flow of silt and sediment. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted, particularly after monsoon, and maintained properly.

Garland drain of appropriate size, gradient and length shall be constructed for both mine pit and inter burden dumps 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 should be constructed at the corners of the garland drains and desilted at regular intervals.

- (viii) Dimension of the retaining wall at the toe of inter burden dumps and inter burden benches within the mine to check run-off and siltation should be based on the rain fall data.

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- (ix) Plantation shall be raised in an area of 203.12ha including a green belt of adequate width by planting the native species around ML area, over burden dumps, around water body, roads etc. in consultation with the local DFO/Agriculture Department. At least 1500 trees per year shall be planted with a tree density of 2000trees per ha.
- (x) Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells and constructing new piezometers at suitable locations by the project proponent in and around the project area in consultation with Regional Director, Central Ground Water Board. The frequency of monitoring should be four times a year- pre-monsoon (April / May), monsoon (August), post-monsoon (November), and winter (January). Data thus collected should be sent at regular intervals to Ministry of Environment and Forests and its Regional Office Lucknow, Central Ground Water Authority and Central Ground Water Board, Western Region, Jaipur.
- (xi) Suitable conservation measures to augment groundwater resources in the area shall be planned and implemented in consultation with Regional Director, Central Ground Water Board.
- (xii) Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with Regional Director, Central Ground Water Board.
- (xiii) The project proponent shall take appropriate mitigative measures to prevent pollution of Lilri River in consultation with the State Pollution Control Board.
- (xiv) Permission from the competent authority should be obtained for drawal of ground water required for the project.
- (xv) Blasting operation should be carried out only during the daytime. Controlled blasting should be practiced. The mitigative measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented.
- (xvi) Drills shall either be operated with dust extractors or equipped with water injection system.
- (xvii) Vehicular emissions should 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 should be covered with a tarpaulin and shall not be overloaded.

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- (xviii) 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 Ministry of Environment and Forests and its Regional Office, Lucknow.
- (xix) Regular water sprinkling should be carried out in critical areas prone to air pollution and having high levels of SPM and RPM such as haul road, loading and unloading points, transfer points and other vulnerable areas. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
- (xx) Crusher should be operated with high efficiency bag filters. The screening plant and all transfer and loading & unloading points should be provided with water spraying system and equipped with dust collector/ extraction system.
- (xxi) Sewage treatment plant should be installed for the colony. ETP should also be provided for workshop and mineral separation plant wastewater.
- (xxii) Consent to operate should be obtained from SPCB before starting enhanced production from the mine.
- (xxiii) 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 limestone and waste should be made.
- (iii) Conservation measures for protection of flora and fauna in the core & buffer zone should 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 RPM, SPM, SO<sub>2</sub> and 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 in consultation with the State Pollution Control Board.

Data on ambient air quality (RPM, SPM, SO<sub>2</sub> and Nox) 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) Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangements on haul roads, loading & 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 pluggs/ 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.

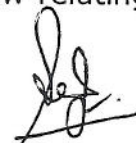
Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.

- (ix) 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.
- (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 and its Regional Office located at Lucknow.
- (xi) 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.
- (xii) 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.

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- (xiii) A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom suggestion / representation, if any, was received while processing the proposal.
  - (xiv) 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.
  - (xv) 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 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.



(SATISH C. GARKOTI)  
Additional Director (S)

Copy to:

- i) The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
- ii) The Secretary, Department of Mines & Geology, Government of Rajasthan, Secretariat, Jaipur.

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- 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, Pali 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.