

**No. J-11015/390/2008-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 22<sup>nd</sup> February, 2011

To

✓ M/s Jaypee Gujarat Cement Plant  
A Unit of Jaiprakash Associates Limited,  
(Formerly known as M/s Gujarat Anjan Cement Ltd.),  
'JA' House, 63, Vasant Lok,  
Vasant Vihar,  
New Delhi-110 057  
E-mail: [manoj.gaur@jalindia.com](mailto:manoj.gaur@jalindia.com)

**Subject: Kharai Harudi Limestone Mining Project of M/s Jaypee Gujarat Cement Plant, A Unit of Jaiprakash Associates Limited (Formerly known as M/s Gujarat Anjan Cement Ltd.), located in Village(s) Kharai, Jadva, Vaghpadhar & Harudi, Tehsil(s) Lakhpat & Abdasa, District Kachchh, Gujarat -environmental clearance regarding.**

Sir,

This has reference to your letter No. JGCP/MOEF/SP-II-MINE/2010 dated 29.06.2010 and subsequent letters dated 24.09.2010 and 18.01.2011 on the subject mentioned above. The project was earlier prescribed Terms of Reference (TORs) by the Ministry of Environment and Forests on 05.02.2009 for undertaking detailed EIA study for the purpose of obtaining environmental clearance. The proposal is for opening of a new mine for production of 6.8million tonnes per annum (million TPA) of Limestone for their captive use in the cement plant.

2. The total mine lease area of the project is 2831.51ha, spread over four blocks namely Kharai, Harudi, Jadva and Vaghpadhar, out of which 182.22ha is an agricultural land and 2649.39ha is Government wasteland. No forestland is involved. Area proposed for mining is 2398.55ha, an area of 20ha is kept for mineral storage, 0.02ha for infrastructure, 1.40ha for roads and 495.64ha is green belt. The study area has dense and intricate network of drainage representing dendritic pattern. Most of drainage network are seasonal and remain dry. Flash flood is common in the area. Most of the rivers present in the Southern portion of the study area flow South Easterly draining storm water into Arab Sagar. The important rivers present in the Southern portion inter alia include river Kasodwaly, Berwaly, Rakhdi and Barkhan, ultimately

joining the Arabian Sea. Besides, in the Northern part of the study area, the Kakdi nadi flows North Westerly. The core zone occupies parts of Golay and Rakhdi watershed. There are three seasonal drains in the Western portion and one in the Eastern portion. Appropriate width barrier will be left which will be afforested. No modification/diversion in the existing natural drainage pattern at any stage is envisaged.

3. The Narayan Sarovar Sanctuary is reported to be at a distance of 3km. The proponent has submitted a copy of the letter dated 20<sup>th</sup> September, 2010 from the Chief Wildlife Warden along with a map showing the location of the mine with respect to the Sanctuary. Four reserve forests namely the Harudi RF, the Maniyara RF (adjacent to ML), the Ratipar RF[(1.4km WNW(Jadva)], and the Mindhiary RF[(5.1km NE(Harudi))] are in the buffer zone of the mine.

4. The mine working will be opencast by mechanized method using Surface Miners without involving drilling and blasting. The targetted production capacity of the mine is 68,00,000TPA(6.8million TPA) of limestone and the life of mine is 68years. Approximately 22,666TPD of limestone will be transported through the road. The topography of the area is flat and undulated at an elevation above mean sea level ranging from 40m to 58m. The ultimate working depth of mine will be 10.75m bgl. The groundwater table is reported to vary between 40-45m bgl. The mine working will not intersect the groundwater table. The water requirement for the project is estimated as 204m<sup>3</sup> per day, which will be sourced from their existing Desalination Plant. No solid waste generation is envisaged, therefore there will be no external OB dump. Approximately 0.075m<sup>3</sup> per month of sludge from septic tank will be generated, which will be composted and used as manure. Plantation will be raised in an area of 405.64ha at the end of the mine life and an area of 2424.55ha will be converted into water body. It has been reported that there is no population in the core zone, therefore, displacement of population and R&R has not been envisaged.

5. The public hearing of the project was held on 23.02.2010. The Indian Bureau of Mines had approved mining plan of the project alongwith PMCP on 25.02.2009 for lease area of 2831.61ha in the name of M/s Gujarat Anjan Cement Ltd. Subsequently, the Indian Bureau of Mines vide letter dated 31.08.2009 changed the name of lessee. The company M/s Gujarat Anjan Cement Ltd. amalgamated with M/s Jaiprakash Associated Ltd. vide order dated 15<sup>th</sup> May, 2009 of Hon'ble High Court of Judicature at Allahabad. The capital cost of the project is Rs.100Crores and the capital cost for the environmental protection measures is proposed as Rs.744.8Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs.164.2Lakhs. It has been stated that no court case is pending against the project or related activities.

6. 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 Kharai Harudi Limestone Mining Project of M/s Jaypee Gujarat Cement Plant, A Unit of Jaiprakash Associates Limited (Formerly known as M/s Gujarat Anjan Cement Ltd.) for an annual production capacity of 68,00,000tonnes (6.8million tonnes) of limestone by the opencast mechanized method involving total mining lease area of 2831.61ha, subject to implementation of the following conditions and environmental safeguards.

**A. Specific conditions**

- (i) The project proponent shall obtain Consent to Establish and Consent to Operate from the Gujarat State Pollution Control Board and effectively implement all the conditions stipulated therein.
- (ii) The environmental clearance is subject to approval of the State Landuse Department, Government of Gujarat for diversion of agricultural land for non-agricultural use.
- (iii) Requisite prior clearance from the Standing Committee of the National Board for Wildlife shall be obtained due to location of the project in the buffer zone of the Narayan Sarovar Wildlife Sanctuary, before starting any activity relating to the project at site. All the conditions stipulated by the Standing Committee of the National Board for Wildlife shall be effectively implemented in the project. It shall be noted that this clearance does not necessarily implies that wildlife clearance shall be granted to the project and that your proposal for wildlife clearance shall be considered by the competent authorities on its merit and decision taken. The investment made in the project, if any based on environmental clearance granted to the project, in anticipation of the clearance from wildlife clearance shall be entirely at the cost and risk of the project proponent and Ministry of Environment and Forests shall not be responsible in this regard in any manner.
- (iv) The environmental clearance is subject to the final order of the Hon'ble Supreme Court of India in the matter, as may be applicable to this project.
- (v) Environmental clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No. 460 of 2004, as may be applicable to this project.
- (vi) Environmental clearance is subject to obtaining clearance under the Wildlife (Protection) Act, 1972 from the competent authority, as may be applicable to this project.

24/-

- (vii) 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 & Forests and Central Ground Water Authority shall be obtained for which a detailed hydro-geological study shall be carried out also taking into account the aspect of salinity ingress, if any.
- (viii) The project proponent shall ensure that no natural watercourse and/or water resources shall be obstructed due to any mining operations. Necessary safeguard measures to protect the first order streams originating from the mine lease shall be taken.
- (ix) The top soil, if any shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for a period more than 3years. The topsoil should be used for land reclamation and plantation.
- (x) There shall be no external over burden dump. The void created in an area of 2424.55ha 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. 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 located at Bhopal on six monthly basis.
- (xi) Catch drains and siltation ponds of appropriate size shall be constructed around the working pit, soil and mineral dumps to prevent run off of water and flow of silt and sediments directly into the agricultural fields and water bodies. 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 drains, settling tanks and check dams of appropriate size, gradient and length shall be constructed around the mine pit and soil dumps to prevent run off of water and flow of sediments directly into the agricultural fields and 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 should be constructed at the corners of the garland drains and desilted at regular intervals.

10.5/-

- (xii) Plantation shall be raised in an area of 405.64ha including a 7.5m wide green belt in the safety zone around the mining lease, benches of the excavated pit, around worked out pit, roads etc. by planting the native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 1600 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.
- (xiii) The plantation schedule shall be so worked out that the plantation towards the sanctuary side will be taken up forthwith in the first phase.
- (xiv) 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 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.
- (xv) 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.
- (xvi) Regular monitoring of ground water level and quality shall be carried out within the mine lease and in the surrounding area (upto 5 km of the mine lease) by establishing a network of groundwater monitoring stations (existing wells and installing new piezometers) during the mining operation in consultation with Central Groundwater Authority / Ground Water Board and groundwater table shall be monitored and records maintained. 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 Bhopal, 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 and salinity ingress in groundwater is observed due to the mining activity, necessary corrective safeguard measures shall be taken in consultation with the Central Ground Water Authority.
- (xvii) The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water (surface water and ground water), if any, required for the project.

2/6/-

- (xviii) The project proponent shall practice suitable rainwater harvesting measures on long term basis and work out a detailed scheme for rainwater harvesting in consultation with the Central Groundwater Authority and submit a copy of the same to the Ministry of Environment and Forests and its Regional Office, Bhopal.
- (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 mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.
- (xx) No transportation of ore outside the mine lease area shall be carried out after sunset.
- (xxi) Drilling and blasting operation shall not be carried out.
- (xxii) 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 located at Bhopal.
- (xxiii) 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.
- (xxiv) Sewage treatment plant shall be installed for the colony. ETP shall also be provided for the workshop and wastewater generated during the mining operation.
- (xxv) 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.
- (xxvi) 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.
- (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

271-

- (xxviii) The critical parameters such as RSPM (Particulate matter with size less than  $10\mu\text{m}$  i.e.,  $\text{PM}_{10}$ ) &  $\text{NO}_x$  in the ambient air within the impact zone, 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](http://www.envfor.nic.in) shall also be referred in this regard for its compliance.
- (xxix) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna namely Chinkara, peacock, monitor lizard etc. found in the study area. Action plan for conservation of flora and fauna shall be prepared in consultation with the State Forest and Wildlife Department. All the safeguard measures brought out in the Wildlife Conservation Plan so prepared specific to this project site shall be effectively implemented. 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. A copy of action plan shall be submitted to the Regional Office of the Ministry of Environment and Forests, Bhopal.
- (xxx) 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) 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.,  $\text{PM}_{10}$ ) and  $\text{NO}_x$  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 RSPM (Particulate matter with size less than 10micron i.e.,  $\text{PM}_{10}$ ) &  $\text{NO}_x$  should be regularly submitted to the Ministry of Environment and Forests including its Regional office located at Bhopal and the State Pollution Control Board / Central Pollution Control Board once in six months.

2/5/-

- (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.
- 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 Bhopal.
  - (xi) The project authorities should inform to the Regional Office located at Bhopal 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 Bhopal 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 environmental clearance 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.

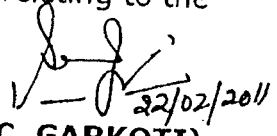


Bhopal, the respective Zonal Office of Central Pollution Control Board the State Pollution Control Board. The proponent shall upload the status of compliance of the environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the Ministry of Environment and Forests, Bhopal, 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 Parishad/ 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 31<sup>st</sup> 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 environmental clearance conditions and shall also be sent to the Regional Office of the Ministry of Environment and Forests, Bhopal by e-mail.
  - (xvii) The project authorities should advertise at least in two local newspapers of the District or State in the project is located and 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 Bhopal.
7. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
8. 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.

*[Handwritten signature]*

9. 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 Gujarat and any other Court of Law relating to the subject matter.

  
 (SATISH C. GARKOTI)  
 Scientist 'F'

**Copy to:**

- (i) The Secretary, Ministry of Mines, Government of India , Shastri Bhawn, New Delhi-110 001.
- (ii) The Secretary, Department of Mines & Geology, Government of Gujarat, Secretariat, Gandhinagar.
- (iii) The Secretary, Department of Environment, Government of Gujarat, Secretariat, Gandhinagar.
- (iv) The Secretary, Department of Forests, Government of Gujarat,, Secretariat, Gandhinagar.
- (v) The Chief Wildlife Warden, Government of Gujarat, Dr. Jivaji Mehta Bhavan, Block No. 14, 1<sup>st</sup> Floor, Old Sachivalaya, Gandhinagar Gandhinagar-382 010.
- (vi) The Chief Conservator of Forests, Regional Office (WZ),Kendriya Paryavaran Bhawan, Link Road No.3, Ravi Shankar Nagar, Bhopal-462 016.
- (vii) Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office complex, East Arjun Nagar, New Delhi-1100032.
- (viii) The Member Secretary, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001.
- (ix) The Chairman, Gujarat State Pollution Control Board, Sector 10-A, Gandhi Nagar - 382043, Gujarat.
- (x) The Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440 001.
- (xi) The District Collector, Kachchh District, Gujarat.

- (xii) EI Division, Ministry of Environment and Forests, Paryavaran Bhavan, C. G. O. Complex, Lodi Road, New Delhi-110 003.
- (xiii) Monitoring File.
- (xiv) Guard File.
- (xv) Record File.