

11
4

F.No.J-11015/354/2006-IA.II(M)
Government of India
Ministry of Environment & Forests

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

Dated the 28th May, 2008

To

M/s Jaiprakash Associates Limited(JAL)
P.O. Jaypee Nagar,
District Rewa,
Madhya Pradesh
E-mail: ajaytewary@jalindia.co.in

Subject: Degarhat Dev Mau Dal Dal Limestone Mining Project of M/s Jai Prakash Associates Limited (JAL), located in Village(s) Degarhat and Devamaudaldal, Tehsil Rampur-Baghelan, District Satna, Madhya Pradesh - Environmental Clearance regarding.

Sir,

This has reference to your letter No. JAL/CO-ORD/2007-08 dated 28.06.2007 and subsequent letters dated 11.02.2008 and 21.02.2008 on the subject mentioned above. The proposal is for opening of a new mine for production of 1million tonnes per annum (million TPA) of limestone for the captive use of their cement plant. The additional requirement of limestone is due to enhancement of the capacities of their cement plants. The additional terms of reference for including in the EIA report were prescribed by this Ministry vide letter of even number dated 15.01.2007. The total mine lease area of the project is 816.519ha, out of which 528.119ha is an agricultural land and 288.4ha is grazing land. No forestland is involved. Area proposed for mining 442ha, an area of 0.5ha is kept for infrastructure, 1ha for roads, 20.88ha for green belt and 352.139ha is others (undisturbed). The Tamas River and Simrawal Nadi are located at a distance of 8.18km and 7.47km north west respectively from the mine lease. The Kariari Nallah is located at a distance of 100m east from the mine lease boundary. No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. is 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 Janardhanpur reserve forests is 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 1million TPA of limestone and life of mine is 50years. Approximately 3330TPD of mineral will be transported through road. The topography of the area is flat at an elevation ranging from 278m-306m AMSL. The ultimate working depth of mine will be 275m AMSL and the groundwater table is at 270m AMSL. The mine working will not intersect

2/-

PAGE 01 OF 13

ground water table. The water requirement of the project is estimated as 120m^3 per day, which will be met from mine water and drinking water requirement of 5m^3 per day will be met from groundwater. However, during the initial period, the water requirement will be met from the existing reservoir in Naubasta. It has been reported that 20 households with a population of 70 people are in the core zone. The households will lose their dwelling/houses and will be shifted outside the mining lease area. For rehabilitation of such families, suitable employment will be provided. In addition, agricultural land of about 230 families will also be affected by the project. The Company will pay compensation to all the land affected persons for acquisition of their land. Approximately $60,000\text{m}^3$ per month of over burden (clay, soil with middle shale and nodular shale) will be generated, which will be used for backfilling and reclamation. It is estimated that 46.21 million m^3 of OB will be generated during the mine life, which will be backfilled. Backfilling will start from the 6th year onwards and there will be no external OB dump after the 10th year. Out of the total excavated area of 442ha, an area of 289ha will be backfilled at the end of the mine life and an area of 153ha will be developed as water body during the post mining stage. Plantation will be raised in 297.37ha backfilled area and an area of 12.13ha will be covered under greenbelt. The public hearing of the project was held on 21.05.2007 for production of 1million TPA of limestone involving lease area of 816.519ha. The Indian Bureau of Mines had approved modified mining plan alongwith progressive mine closure plan of the project on 24.08.2006 for lease area of 816.519ha. The capital cost of the project is Rs.2000lakhs. The capital investment on environmental improvement works is envisaged as Rs.99.58lakhs and recurring expenditure during the stage of production is Rs.55.99lakhs per year.

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 Dengrahat Dev Mau Dal Dal Limestone Mining Project of M/s Jai Prakash Associates Limited for an annual production capacity of one million tonnes (1million tonnes) of limestone by opencast mechanized method involving mining lease area of 816.519ha, subject to implementation of the following conditions and environmental safeguards.

A. Specific conditions

- (i) The project proponent shall obtain consent to establish from the Madhya Pradesh 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 Madhya Pradesh for diversion of agricultural land for non-agricultural use.

..3/-

PAGE 05 OF 13

- (iii) 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 and Forests and Central Ground Water Authority shall be obtained, for which a detailed hydro-geological study shall be carried out.
- (iv) The project proponent shall ensure that no natural watercourse and/or water resources shall be obstructed due to any mining operations.
- (v) 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 3 years. The topsoil shall be used for land reclamation and plantation.
- (vi) The over burden generated during the initial years due to mining operation shall temporarily be stacked at earmarked dump site(s) only and thereafter concurrently backfilled. Backfilling shall start from the 6th year onwards and there shall be no external over burden dump after the 10th year. The backfilled area of 289ha shall be reclaimed and rehabilitated by plantation. 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.
- (vii) The void left unfilled in an area of 153ha 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.
- (viii) Catch drains and siltation ponds of appropriate size shall be constructed around the working pit, soil, mineral and temporary OB dumps to prevent run off of water and flow of sediments directly into the 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 both around the mine pit and temporary over burden dumps to prevent run off of water and flow of sediments directly into the 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.

- (ix) Dimension of the retaining wall at the toe of temporary dumps and OB benches within the mine to check run-off and siltation should be based on the rain fall data.
- (x) Plantation shall be raised in an area of 309.5ha including a 7.5m wide green belt in the safety zone around the mining lease in an area of 12.13ha by planting the native species around ML area, backfilled and reclaimed area, around water body and benches of the excavated pit, roads etc. in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2000 plants per ha.
- (xi) The project proponent shall develop fodder plots in the non-mineralised area in lieu of use of grazing land.
- (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 RPM such as haul road, loading and unloading point and transfer points. It should 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 authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.
- (xiv) Regular monitoring of water quality upstream and downstream of Kariari Nallah shall be carried out and record of monitoring data should be maintained and submitted to Ministry of Environment and Forests, its Regional Office, Bhopal, Central Groundwater Authority, Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board.
- (xv) Regular monitoring of ground water level and quality should 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 should 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 Bhopal, Central Ground Water Authority and Regional Director, Central Ground Water Board.
- (xvi) Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with Regional Director, Central Ground Water Board.

5/-

PAGE 4 OF 13

- (xvii) Appropriate mitigative measures should be taken to prevent pollution of Tamas River and Simrawal Nadi in consultation with the State Pollution Control Board.
- (xviii) Minerals handling plant should 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.
- (xix) 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.
- (xx) 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.
- (xxi) Drills shall either be operated with dust extractors or equipped with water injection system.
- (xxii) Consent to operate should be obtained from the State Pollution Control Board prior to start of production from the mine.
- (xxiii) Sewage treatment plant should be installed for the colony. ETP should also be provided for workshop and wastewater generated during mining operation.
- (xxiv) 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, Bhopal.
- (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) Land oustees and land losers/affected people should be compensated and rehabilitated as per the National Policy on Resettlement and Rehabilitation of project Affected Families (NPRR), 2003.
- (xxvii) The project proponent should take all precautionary measures during mining operation for conservation and protection of endangered fauna such as *Macaca mulatta*, *Presbytis entellus*, common peafowl etc. 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. Copy of action plan may be submitted to the Ministry and its Regional Office within 3 months.

- (xxviii) 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) Periodic monitoring of ambient air quality should be carried out for RPM, SPM, SO₂ and NO_x. Location of the monitoring 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. The data so collected should be regularly submitted to the Ministry including its Regional office located at Bhopal and the State Pollution Control Board / Central Pollution Control Board once in six months.
- (iv) 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.
- (v) 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.
- (vi) 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.
- (vii) 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.

- (viii) 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.
 - (ix) 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 Bhopal.
 - (x) 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.
 - (xi) 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, Bhopal, Central Pollution Control Board and State Pollution Control Board.
 - (xii) 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.
 - (xiii) 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.
 - (xiv) 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 Bhopal.
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, 1986.

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 Madhya Pradesh 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 Bhavan, New Delhi.
- (ii) The Secretary, Department of Mines & Geology, Government of Madhya Pradesh, Secretariat, Bhopal.
- (iii) The Secretary, Department of Environment, Government of Madhya Pradesh, Secretariat, Bhopal.
- (iv) The Chief Wildlife Warden, Government of Madhya Pradesh, Van Bhavan 1st Floor, Tulsi Nagar, Bhopal - 462 003.
- (v) The Chief Conservator of Forests, Regional Office (WZ), E-3/240, Arera Colony, Bhopal-462 016
- (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.
- (viii) The Chairman, Madhya Pradesh State Pollution Control Board, Paryavaran Parisar, E-5, Arera Colony, Bhopal - 462016
- (ix) The Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440 001.
- (x) The District Collector, Satna District, Madhya Pradesh.

..9/-

PAGE 08 OF 13

(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)