



Government of India  
Ministry of Environment & Forests  
(IA Division)

By speed post

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Dated: June 24, 2009

F. No. J-11011/1117/2008-IA-II (I)

To,

M/s Diamond Cement Ltd.  
(Narsingarh Clinkerisation Plant)  
Narsingarh, District Damoh,  
Madhya Pradesh

[Ashish.guha@heidelbergcement.com](mailto:Ashish.guha@heidelbergcement.com)

**Sub: Expansion of Clinker manufacturing plant from 1.2 MTPA to 3.1 MTPA and Captive Mines of Narsingarh Limestone Mine and Patharia Limestone at Narsingarh, District Damoh, Madhya Pradesh By M/s Diamond Cement Ltd. (Narsingarh Clinkerisation Plant) – Environmental Clearance reg.**

Sir,

Kindly refer your letter no. Gurgaon dated 8<sup>th</sup> August, 2008 alongwith revised Form-I, EIA/EMP and Public hearing report seeking environment clearance under EIA Notification 2006 for the above mentioned project and subsequent submission of information vide letter dated 3<sup>rd</sup> April, 2009 and 4<sup>th</sup> June, 2009.

2.0 The Ministry of Environment and Forests has examined the application. It is noted that M/s Diamond Cement Ltd. have proposed for expansion of Clinker plant from 1.2 MTPA to 3.1 MTPA and Captive Mines of Narsingarh Limestone Mine (1302.70 ha-1.49 MTPA; no change in capacity and ML area) and Patharia Limestone 0.75 to 4.50 MTPA-1247.267 ha (No change in ML area, only increase in production rate is proposed) at Narsingarh, District Damoh, Madhya Pradesh. For expansion of clinkerisation a new line for clinker manufacturing capacity of 1.9 MTPA will be installed. The proposed expansion will be carried out in the existing plant premises and no change of land use is envisaged. River Sonar is passing through mine lease area in Narsingarh mine lease area and a seasonal stream Sajali Nadi flows 750 m North of Patharia Mine lease area. Mining plan for the Narsingarh has been approved by IBM vide letter no. 314(3)/2006-MCCM(C)/MP-8 Nagpur dated 28<sup>th</sup> November, 2006 and for Patharia Mine vide letter no. 314(3)/2007-MCCM(C)/S-37 dated 25<sup>th</sup> April, 2008. Total cost of the project is Rs. 832.00 Crores.

3.0 Bag house, ESP, bag filters and stacks of suitable height will be installed to control emissions within 50 mg/Nm<sup>3</sup> for new line. Water spraying will be done on the roads for fugitive dust control within the premises. Water consumption for the plant will increase from 2500 m<sup>3</sup>/day to 4500 m<sup>3</sup>/day. Water requirement will be met from the existing water sources i.e. old mining pits and nearby river water. The water requirement for mine operation will be 300 m<sup>3</sup>/day and 215 m<sup>3</sup>/day respectively for Patharia and Narsingarh limestone mines. Wet drilling, water sprinkling on haul roads and maintenance of the vehicles will be done to control dust pollution in the mining area. Grading of haul roads and service roads will be done. All the dust collected in air pollution control equipments in the cement plant will be recycled/reused in the process. The benches will be 10 M high, 15 wide (7 M wide at finishing stage) with bench slope of 80% will be opencast mechanized with shovel, dumper combination. Controlled blasting, safe charge per delay to control ground vibrations and use of cap sensitive explosives will be practiced. Mine working will not intersect the ground water table.

4.0 Public hearing meeting was held on 28<sup>th</sup> June, 2008.

5.0 The Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA Notification dated 14<sup>th</sup> September, 2006 subject to strict compliance to the following specific and general conditions:

**A. Specific Conditions:**

- i). The company shall conduct long term modeling for hydro-geological studies of the mining areas and report shall be submitted to the Ministry's regional Office at Bhopal within three months.
- ii). The company shall produce the copy of certificate under section 6(1)(b) of the Mines and Minerals (Regulation and Development) Act, 1957 (67 of 1957) for the total mining area beyond 1000 ha before commencement of the expansion activity at site.
- iii). The gaseous and particulate matter emissions from various units shall conform to the standards prescribed by the Madhya Pradesh Pollution Control Board (MPPCB). At no time, particulate emissions from the cement plant including kiln, coal mill, cement mill and cooler shall not exceed 50 mg/Nm<sup>3</sup>. Continuous on-line monitors for particulate emissions shall be installed. Interlocking facility shall be provided in the pollution control equipment so that in the event of the pollution control equipment not working, the respective unit (s) is shut down automatically.
- iv). Secondary fugitive emissions shall be controlled within the prescribed limits and regularly monitored. Guidelines / Code of Practice issued by the CPCB in this regard shall be followed. The company shall install adequate dust collection and extraction system to control fugitive dust emissions at material transfer points. Atomized water spray system with reclaimers shall be installed in silo used for the storage of ash. Storage of other raw materials shall be in closed roof sheds. Covered conveyer belts shall be used to reduce fugitive emissions. Concreting of all the roads, water sprinkling system at limestone and coal handling area shall be ensured to reduce fugitive emissions.
- v). Ambient air quality including ambient noise levels shall not exceed the standards stipulated under EPA or by the State authorities. Monitoring of ambient air quality shall be carried out regularly in consultation with MPPCB and data for air emissions shall be submitted to the CPCB and MPPCB regularly. The instruments used for ambient air quality monitoring shall be calibrated time to time.
- vi). Data on ambient air quality stack emission and fugitive emissions shall be uploaded on the company's website and also regularly submitted online to Ministry's Regional office at Bhopal, M.P. Pollution Control Board and Central Pollution Control Board as well as hard copy once in six months. Data on SPM, SO<sub>2</sub> and NO<sub>x</sub> shall also be displayed prominently outside the premises at the appropriate place for the general public.
- vii). Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land.
- viii). The company shall make the efforts to utilise the high calorific hazardous waste in the cement kiln and necessary provisions shall be made accordingly. The company shall keep the record of the waste utilized and shall submit the details to ministry's Regional Office at Bhopal, CPCB and MPPCB.
- ix). Total water requirement shall not exceed 5015 m<sup>3</sup>/day from the mine pits and sonar river. A copy of permission letter shall be submitted to Ministry's Regional Office at Bhopal. The treated wastewater from STP and utilities shall be reutilized for green belt development and other plant related activities i.e. cooling and dust suppression in raw material handling area etc. after necessary treatment. 'Zero' discharge shall be strictly adopted and no effluent from the process shall be discharged outside the premises.
- x). Rainwater harvesting measures shall be adopted for the augmentation of ground water at cement plant,

colony and mine site. Besides, company must also harvest the rainwater from the rooftops and storm water drains to recharge the ground water. The company must also collect rain water in the mined out pits of captive lime stone mine and use the same water for the various activities of the project to conserve fresh water and reduce the water requirement pressure from the river. The Company shall construct the rain water harvesting and groundwater recharge structures outside the plant premises also in consultation with local Gram Panchayat and Village Heads to augment the ground water level. An action plan shall be submitted to Ministry's Regional Office at Bhopal within 3 months from date of issue of this letter

- xii). The project proponent shall modify the mine plan of the project at the time of seeking approval for the next mining scheme from the Indian Bureau of Mines so as to reduce the area for external over burden dump by suitably increasing the height of the dumps with proper terracing. It shall be ensured that the overall slope of the dump does not exceed  $28^{\circ}$ . The final slope of the lime stone mine pit shall not exceed  $45^{\circ}$ .
- xiii). Topsoil, if any, shall be stacked with proper slope at earmarked site(s) only with adequate measures and shall be used for reclamation and rehabilitation of mined out areas.
- xiv). The project proponent shall ensure that no natural water course shall be obstructed due to any mining and plant operations. The company shall make the plan for protection of the river passing through mine area premises and submit to the ministry's Regional Office at Bhopal.
- xv). The inter burden and other waste generated shall be stacked at earmarked dump site(s) only and shall not be kept active for long period. The total height of the dumps shall not exceed 30 m in three terraces of 10 m each and the over all slope of the dump shall be maintained to  $28^{\circ}$ . The inter burden dumps 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, Bhopal on six monthly bases.
- xvi). The void left unfilled shall be converted into water body. The higher benches of excavated void/mining pit shall be terraced and plantation to be 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.
- xvii). Catch drains and siltation ponds of appropriate size shall be constructed for the working pit, inter burden and mineral dumps to arrest flow of silt and sediment. The water so collected shall be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted, particularly after monsoon, and maintained properly.
- xviii). Garland drain of appropriate size, gradient and length shall be constructed for both mine pit and inter burden dumps and sump capacity shall 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 shall 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.
- xix). 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 shall be based on the rain fall data.
- xx). Regular monitoring of ground water level and quality shall be carried out by establishing a network of existing wells and constructing new piezometers at suitable locations by the project proponent in and around project area in consultation with Regional Director, Central Ground Water Board. The frequency of monitoring shall be four times a year- pre-monsoon (April / May), monsoon (August),

post-monsoon (November), and winter (January). Data thus collected shall be sent at regular intervals to Ministry of Environment and Forests and its Regional Office at Bhopal, Central Ground Water Authority and Central Ground Water Board.

- xx). 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 shall be implemented.
- xxi). The project proponent shall adopt wet drilling.
- xxii). As proposed, green belt shall be developed in 33 % in and around the plant as per the CPCB guidelines.
- xxiii). All the recommendations of the Corporate Responsibility or Environmental Protection (CREP) for cement plant shall be strictly followed.
- xxiv). 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.
- xxv). Digital processing of the entire lease area using remote sensing technique shall 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.
- xxvi). A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure, for approval.
- xxvii). The company shall comply with all the commitments made during public on 28<sup>th</sup> June 2008.
- xxviii). 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

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**B. General conditions:**

- i. The project authority shall adhere to the stipulations made by State Pollution Control Board (SPCB) and State Government.
- ii. No further expansion or modification of the plant shall be carried out without prior approval of this Ministry.
- iii. At least four ambient air quality monitoring stations shall be established in the down wind direction as well as where maximum ground level concentration of SPM, SO<sub>2</sub> and NO<sub>x</sub> are anticipated in consultation with the SPCB. Data on ambient air quality and stack emissions shall be regularly submitted to this Ministry including its Regional Office and SPCB / CPCB once in six months.
- iv. Industrial wastewater shall be properly collected and 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. The treated wastewater shall be utilized for plantation purpose.
- v. The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environmental (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

- vi. Proper housekeeping and adequate occupational health programmes shall be taken up. Occupational Health Surveillance programme shall be done on a regular basis and records maintained properly for at least 30-40 years. The programme shall include lung function and sputum analysis tests once in six months. Sufficient preventive measures shall be adopted to avoid direct exposure to dust etc.
  - vii. The company shall undertake eco-development measures including community welfare measures in the project area.
  - viii. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/ EMP.
  - ix. A separate environmental management cell with full fledged laboratory facilities to carry out various management and monitoring functions shall be set up under the control of Senior Executive.
  - x. Adequate fund shall be allocated to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. Time bound implementation schedule for implementing all the conditions stipulated herein shall be submitted. The funds so provided shall not be diverted for any other purpose.
  - xi. The Regional Office of this Ministry / CPCB / SPCB shall monitor the stipulated conditions. The project authorities shall extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports. A six monthly compliance report and the monitored data alongwith statistical interpretation shall be submitted to them regularly.
  - xii. The Project Authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.
  - xiii. No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment & Forests. No change in the calendar plan including excavation, quantum of limestone and waste shall be made.
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- xiv. Measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM etc. shall be provided with ear pluggs/ muffs.
  - xv. Industrial waste water (workshop and waste water from the mine) shall 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 shall be installed before discharge of workshop effluents.
  - xvi. Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.
  - xvii. The project authorities shall inform to the Regional Office located regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
  - xviii. A copy of clearance letter shall be marked to concerned Panchayat / local NGO, if any, from whom suggestion / representation, if any, was received while processing the proposal.

- xix. State Pollution Control Board shall display a copy of the clearance letter at the Regional office, Gram Panchayat, District Industry Centre and Collector's office/ Tehsildar's Office for 30 days.
- xx. The project authorities shall 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 shall be forwarded to the Regional Office of this Ministry.


6.0 The Ministry or any other competent authority may stipulate any further condition(s) on receiving reports from the project authorities. The above conditions shall be monitored by the Regional Office of this Ministry.

7.0 The Ministry may revoke or suspend the clearance if implementation of any of the above conditions is not satisfactory.

8.0 Any other conditions or alteration in the above conditions shall have to be implemented by the project authorities in a time bound manner.

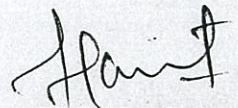
9.0 Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.

10.0 The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 the Air (Prevention and Control of Pollution) Act, 1981 the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

  
(H.S. Malviya)  
Joint Director

Copy to :-

- i. The Secretary (Environment), Govt. of Madhya Pradesh, Mantralaya, Ballabh Bhavan, Bhopal, MP.
- ii. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110032.
- iii. The Chairman, Madhya Pradesh Pollution Control Board, Paryavaran Parishar, E-5, Arera Colony, Bhopal - 462016
- iv. The Chief Conservator of Forests (Central), Ministry of Environment, and Forests, Western Regional Office, Kendriya Paryavaran Bhavan, Link Road No. 3, Ravi Shankar Nagar, Bhopal - 462016
- v. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi-110003.
- vi. Guard file.
- vii. Record file

  
(H.S. Malviya)  
Joint Director