

F. No. J-11011/541/2010-IA-II (I)  
Government of India  
Ministry of Environment and Forests  
(I.A. Division)

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Dated: 16<sup>th</sup> December, 2011

To,

The Chairman,  
**M/s Jaypee Cement Corporation Limited**  
B/105, Kalpataru Plaza, 224 Bhawani Peth,  
Pune- 411 042, Maharashtra

Ph: 0120- 4609000 Fax: 0120- 4609496  
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**Sub:** Proposed Integrated cement plant of 6.0 MTPA and captive power plant of 90 MW at Village Bankur, Tehsil Chittapur, District Gulbarga in Karnataka by **M/s Jaypee Cement Corporation Limited (formerly M/s Zawar Cement Private Limited) - regarding Environmental Clearance**

Sir,

This has reference to your letter no. ZCCL/MOEF/TP/KARNATAKA/2010 dated 09.08.2011 along with copies of EIA/EMP and public hearing reports seeking environmental clearance under the provisions of EIA Notification, 2006.

2. The Ministry of Environment and Forests has examined your application. It is noted that M/s Jaypee Cement Corporation Limited (formerly M/s Zawar Cement Private Limited) have proposed for integrated cement plant of 6.0 MTPA (3.0 MTPA each in Phase I & II) and captive power plant of 90 MW (30 MW in Phase I and 60 MW in Phase II) at Village Bankur, Tehsil Chittapur, District Gulbarga in Karnataka. The plant is proposed to be located within the boundary limits (38 ha) of existing Zawar Cement Works (ZCW) of ZCPL, located in Gulbarga district of Karnataka. The existing colony with green belt is in an area of 15 ha. About 12.5 ha of plant area will be developed under green belt. No National park, Wildlife Sanctuary, Reserve forests / protected forests are located within 10 km of the project area. The total cost of the project is Rs 3,000 Crores. Rs. 360 crores and Rs. 5 Crores will be earmarked towards capital cost and recurring cost/annum for environmental pollution control measures.

3. The raw materials required for the unit are limestone (6.8 MTPA), coal (1.4 MTPA), gypsum (0.3 MTPA) and Fly ash (2.0 MTPA). Limestone is proposed to be transported through pipe conveyor or covered belt conveyor system from the Captive Bankur and Masrawada and Taranhalli mines. About 1.4 MTPA of Indian coal or 0.88 MTPA of Imported coal will be used. The company has signed MOU with M/s Adani Enterprises Limited for supply of 1.4 MTPA of imported coal from South Africa and Indonesia. Gypsum will be sourced from Rajasthan and fly ash from the captive power plant and company's own power plant.

4. It is noted that glass fiber bag house of >99.98% efficiency will be installed to limit the particulate emissions within 50 mg/m<sup>3</sup>. Online particulate emissions monitors will be installed for Kiln/Raw mill stack. Lime injection system will be provided to reduce SO<sub>2</sub> pollution. A well-designed burner system will be installed to limit the temperature and NO<sub>x</sub> generation. All the conveyors will be provided with conveyer covers and hoods to offset any trapping of material in

wind stream. High efficiency reverse air jet type bag filters will be provided to arrest the air borne dust at all the locations where transfer of material from one conveyor to other takes place. The automatic bagging machine with bag filters will be installed for packing plant. The sprinkling of water will be done along the internal roads in the plant in order to control the dust arising due to the movement of vehicular traffic.

5. ESP of 99.95% efficiency will be installed in CPP and to cooler exhaust to control the dust emission below  $50 \text{ mg/Nm}^3$ . Compressed Fluidized Bed Combustion (CFBC) Boiler will be installed at the Captive Power Plant, to control the emissions of  $\text{SO}_2$ . Low  $\text{NO}_x$  burners will be installed at the Captive Power Plant to control the  $\text{NO}_x$  emissions below 50 ppm. Stack of 80-m height is proposed for adequate dispersion of gaseous emissions.

6. Water requirement of  $6,000 \text{ m}^3/\text{day}$  would be met from the River Kagna flowing at 5 Km distance from the plant. The Government of Karnataka vide letter dated 22.06.2010 granted permission for drawl of 15 lakhs Gallon /day ( $6810 \text{ m}^3/\text{day}$ ) of water from river Kagna. No process wastewater will be generated. There will be no wastewater discharge from the proposed cement plant and  $800 \text{ m}^3/\text{day}$  of wastewater would be generated from the CPP. The effluent will be subjected to tertiary treatment for 100% re-utilization. Domestic wastewater will be treated in Sewage Water Reclamation Plant (SWRP) and treated water will be used in greenbelt or in plant operations/dust suppression. Power requirement of 90 MW will be met from the Captive power plant. 20 MW of power would be taken from Shahabad Grid station as emergency requirement and 10.5 MW of DG set would be installed. It is proposed to harvest rain water through recharge trenches and percolation ponds besides the ground water storage.

7. There will be no solid waste generation from the cement plant and the dust collected from air pollution control equipment will be fully recycled in process. Major portion of the other solid waste (scrap from stores / workshop, sludge from septic tanks) will either be reused or sent to authorized recyclers. The fly ash generated from the CPP will be (100%) utilized in the proposed cement plant for manufacturing the Portland Pozzolona Cement (PPC). Bottom ash will be collected and used for landfill in mined out area.

8. All rotating machinery will be well lubricated and provided with enclosures as far as possible to reduce noise transmission. Provision of silencers will be made wherever possible and insulation will be provided for prevention of loss of heat and personnel safety will also act as noise reducers. Layouts, equipment foundations and structures will be designed keeping the requirement of noise abatement in view. Necessary enclosures will also be provided on the working platforms/areas to provide local protection in high noise level areas. All equipment will be kept in a well maintained condition with proper lubrication and housekeeping to avoid excessive noise generation. The workers will be provided with ear plugs.

9. The cement plants with capacity more than 1.0 MTPA are covered under Category A as per para 3(b) of the Schedule of EIA Notification, 2006 and appraised by the Expert Appraisal Committee-1 (Industry) in the Ministry.

10. The proposal was considered by the Expert Appraisal Committee-1 (Industry) in its 28<sup>th</sup> meeting held during 26<sup>th</sup> - 27<sup>th</sup> September, 2011. The Committee recommended the proposal for environmental clearance subject to stipulation of specific conditions along with other environmental conditions. Public hearing for the project was held on 25.05.2011.

11. Based on the information submitted by you, presentation made by you and consultant, M/s Vimta Labs Limited, Hyderabad, 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 of the following Specific and General conditions:

**A. SPECIFIC CONDITIONS:**

- i. Continuous stack monitoring facilities to monitor gaseous emissions from all the stacks shall be provided. The limit of PM shall be controlled within 50 mg/Nm<sup>3</sup> by installing adequate air pollution control system. ESP to clinker cooler, captive power plant Bag house to raw mill/kiln and bag filters to coal mill and cement mill etc. shall be installed to control the particulate emissions.
- ii. Possibilities shall be explored for the proper and full utilization of gases generated from the kiln in waste heat recovery boiler (WHRB) and a feasibility report shall be prepared and submitted to the Ministry and its Regional Office at Bangalore within 3 months from the date of issue of the letter.
- iii. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 shall be followed.
- iv. Secondary fugitive emissions shall be controlled and shall be within the prescribed limits and regularly monitored. Guidelines / Code of Practice issued by the CPCB in this regard should be followed.
- v. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land. All the raw materials including fly ash should be transported in the closed containers only and shall not be overloaded. The company shall have separate truck parking area. Vehicular emissions should be regularly monitored.
- vi. Fly ash shall be utilized as per the provisions of Fly Ash Notification, 1999, subsequently amended in 2009. Fly ash shall be stored in ash silo and 100% used in the cement manufacturing.
- vii. Water requirement shall not exceed 6000m<sup>3</sup>/day. All the treated wastewater shall be recycled and reused in the process and/or for dust suppression and green belt development and other plant related activities etc. No process wastewater shall be discharged outside the factory premises and 'zero' discharge should be adopted.
- viii. Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir should be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.
- ix. Regular monitoring of influent and effluent surface, sub-surface and ground water should be ensured and treated wastewater should meet the norms prescribed by the State Pollution Control Board or described under the Environment (Protection) Act whichever are more stringent. Leachate study for the effluent generated and analysis should also be regularly carried out and report submitted to the Ministry's Regional Office at Bangalore, SPCB and CPCB.
- x. All the bag filter dust, raw mill dust, coal dust, clinker dust and cement dust from pollution control devices should be recycled and reused in the process and used for

cement manufacturing. Spent oil and batteries shall be sold to authorized recyclers / reprocessors only.

- xi. Efforts shall be made to use low-grade lime, more fly ash and solid waste in the cement manufacturing.
- xii. An effort shall be made to use of high calorific hazardous waste in the cement kiln and necessary provision should be made accordingly.
- xiii. As proposed, green belt shall be developed in at least 33 % area in and around the cement plant as per the CPCB guidelines to mitigate the effects of air emissions in consultation with local DFO.
- xiv. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Cement plants should be implemented.
- xv. Occupational Safety & Health hazard management plan so that such exposure can be kept within permissible exposure level so as to protect health of workers shall be submitted to the Ministry's Regional Office at Bangalore within three months.
- xvi. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 25<sup>th</sup> May 2011 shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Bangalore.
- xvii. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing Issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program shall be ensured accordingly in a time bound manner.
- xviii. 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, , 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.
- xix. The Company shall submit within three months their policy towards Corporate Environment Responsibility which should inter-alia address (i) Standard operating process/ procedure to bring into focus any infringement/deviation/violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.

**B. GENERAL CONDITIONS:**

- i. The project authority shall adhere to the stipulations made by Karnataka State Pollution Control Board (KSPCB) 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 PM<sub>10</sub>, 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 / KSPCB 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 proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both on hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the KSPCB.

- xiii. 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.
- xiv. 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.
- xv. 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.
- xvi. 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.
- xvii. 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.
- xviii. 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.
- xix. 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.
- xx. A copy of 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 put up on the website of the Company by the proponent.
- xxi. 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 Karnataka 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.
- xxii. 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 alongwith the status of compliance of EC conditions and shall also be sent to the respective regional Office of the MoEF by e-mail.

12. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
13. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
14. The above conditions shall 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, Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.

  
(Dr. P.L. Ahujarai)  
Scientist-F

**Copy to:**

- i. The Secretary, Department of Environment & Forests, Government of Karnataka, Bangalore, Karnataka.
- ii. The Chairman, Karnataka State Pollution Control Board, Parisar Bhawan, No. 49, 4<sup>th</sup> & 5<sup>th</sup> Floor, Church Street, Bangalore - 560 001, Karnataka.
- iii. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi -110032.
- iv. The Chief Conservator of Forests (Central), Regional Office (SZ), Kendriya Sadan, IV<sup>th</sup> Floor, E&F Wing, 17<sup>th</sup> Main Road, Koramangala, Bangalore-560034, Karnataka.
- v. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, New Delhi- 110003.
- vi. Guard file/Monitoring file/Record file.

  
(Dr. P.L. Ahujarai)  
Scientist-F