

F. No. J-11011/1119/2007-IA-II (I)
Government of India
Ministry of Environment & Forests
(IA Division)

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Dated 1st January 2010

To,
✓ M/s Mysore Cements Ltd
Mysore Cements
District Tumkur
Karnataka

E-mail : ashish.guha@heidelbergcement.com

Subject : Expansion of the Cement Plant (Clinker, 0.40 MTPA to 0.55 MTPA; Cement, 0.40 MTPA to 1.20 MTPA) and Limestone production (0.633 MTPA to 1.025 MTPA) at Mysore Cements, Ammasandra, District Tumkur, Karnataka by M/s Heidelberg Cement India Limited - Environmental clearance reg.

Ref. : Your letter no. nil dated 8th August, 2009.

Sir,

Kindly refer your letter no. nil dated 8th August, 2009 alongwith project documents including Form-I, Pre-feasibility Report, draft Terms of References and EIA/EMP as per the EIA Notification, 2006 and subsequent clarifications furnished vide communications dated 14th January, 2009, 13th July 2009/2009 regarding above mentioned cement project.

2.0 The Ministry of Environment & Forests has examined the application. It is noted that proposal is for the expansion of the clinker plant capacity from 0.40 MTPA to 0.55 MTPA by internal de-bottlenecking and optimizing equipment usage; expansion of cement plant by expanding the grinding capacity from 0.40 MTPA to 1.20 MTPA and expansion of limestone production from existing 0.633 MTPA to 1.025 MTPA (Yerekatte limestone mine, ML-I (19.36 Ha) from 0.033 to 0.2 MTPA and Yerekatte limestone mine, ML-II (305.54 Ha) from 0.60 to 0.625 MTPA) by M/s Heidelberg Cement India Limited at Mysore Cements at Ammasandra, District Tumkur, Karnataka. Existing cement plant is located in 40 ha, and no additional land is required. Mines are located at a distance of 18 KM from the plant. Limestone Mining Lease (ML-I) has 19 ha forest land and no additional land is to be acquired. Forest clearance is yet to be obtained. Mining Lease (ML-II) has 305 ha and entire land has been acquired. Total cost of the project is Rs. 122.00 Crores for the expansion and Rs. 6.00 Crores towards replacement of mining machineries.

3.0 Limestone, clay, coal and iron ore will be used as raw materials for clinker production and clinker, slag and gypsum for cement production. Limestone sourced from the captive mines will be crushed and ground to a fine powder alongwith corrective materials like laterite, bauxite etc., homogenized, pre-heated and fed to a rotary kiln to heat at high temperatures transforming

into clinker and cooled in a clinker cooler. The clinker will be inter-ground with slag and gypsum in a Vertical Roller Mill to produce Portland Slag Cement (PSC).

4.0 State-of-the-art equipments like bag house to cement grinding mill and pulse jet bag filters at all transfer points and storages will be provided to control emissions. Total water requirement for the cement plant and mine from the mine pit will be 800 m³ and 315 m³/day respectively. Oil-water separator will be installed to segregate the oil from the water. The wastewater from the domestic sources and plant will be treated in sewage treatment plant (STP) and used for irrigation. Drilling will be carried out using a water spray. All the solid waste will be recycled/reused in the cement manufacturing plant. In the mines, the overburden rejects will be stored in the areas earmarked for it separately. The spent oil from the Heavy Earth Moving Equipments will be used for lubricating at the stacker/ reclaimer.

5.0 Public hearing/Public consultation meeting was held on 26th June, 2008. Mining Plan is approved by the Indian Bureau of Mines vide letter dated 1st February, 2008.

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

A. SPECIFIC CONDITIONS:

- i) No construction activity should be started at the site without obtaining prior approval from the Central / State Govt. for the diversion of forest land under the Forest (Conservation) Act, 1980 and subsequent amendments, if any. Permission of the Central/State Govt. as applicable regarding forest clearance under Forest (Conservation) Act, 1980 and subsequent amendment shall be obtained. The environment clearance granted does not necessarily imply that forest clearance under the Forest (Conservation) Act, 1980 and subsequent amendment shall be granted to the project. The project shall be considered by the concerned authorities on the merits and decision taken accordingly. The investment made in the project, if any, based on the environment clearance so granted, in anticipation from the forest clearance, shall be entirely at the cost and risk of the project proponent and Ministry of Environment & Forests shall not be responsible in this regard in any manner.
- ii) The Company shall comply with the conditions stipulated in the mining approval letter issued by the Indian Bureau of Mines and mining lease issued by the State Government of Karnataka. A copy of the mining lease approval from the Indian Bureau of Mines (IBM) and State Govt. of Karnataka shall be submitted to the Ministry and its Regional Office at Bangalore before initiating any construction work at site related to mining.
- iii) The gaseous and particulate matter emissions from various units shall conform to the standards prescribed by the Rajasthan Pollution Control Board. At no time, particulate emissions from the cement plant including kiln, coal mill, cement mill, cooler and captive power plant (CPP) shall exceed 50 mg/Nm³. State of the art equipments like bag house to cement grinding mill and pulse jet bag filters at all transfer points and storages shall be provided. 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. The data collected shall be submitted to the Ministry's Regional Office at Bangalore, Karnataka Pollution Control Board (KPCB) and CPCB regularly.

- iii) The Company shall install low NO_x burner with Kiln/calcliner to control NO_x emissions below 400 mg/Nm³.
- iv) 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 Bangalore, Karnataka Pollution Control Board and Central Pollution Control Board as well as hard copy once in six months. Data on SPM, SO₂ and NO_x shall also be displayed prominently outside the premises at the appropriate place for the general public.
- v) 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 conveyor 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. Data regarding fugitive emissions shall be submitted to the Ministry's Regional Office at Bangalore, CPCB and KPCB.
- vi) Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land.
- vii) The company shall make the efforts to utilize 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 Bangalore, CPCB and KPCB within 3 months from the date of issue of the letter.
- viii) The National Ambient Air Quality Emission Standards issued by the Ministry vide G S R No. 828(E) dated 16th November, 2009 shall be followed.
- ix) 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 and shall be carried out regularly in consultation with Karnataka State Pollution Control Board (KSPCB) and data for air emissions shall be submitted to the CPCB and KSPCB regularly. The instruments used for ambient air quality monitoring shall be calibrated time to time.
- x) Regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of SPM and RPM particularly in mine area and other vulnerable areas. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
- xi) 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.

- xii) 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 shall be transported in the closed containers only and shall not be overloaded. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. Vehicular emissions shall be kept under control and regularly monitored.
- xiii) Asphaltting/concreting of roads and water spray all around the critical areas prone to air pollution and having high levels of SPM and RPM shall be ensured to control dust emissions.
- xiv) Total water requirement shall not exceed 800 m³/day for the cement plant and 315 m³/day for mines sourced from mine pit water. The water stored in the artificial reservoir made in the mine pit shall be used maximum to reduce ground water consumption. A separate de-siltation tank shall be established to arrest the flow of silt coming out of washings from the heavy earth moving equipment (HEME). All the wastewater from the workshop of mines shall be treated for oil and grease removal. 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.
- xv) 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 Bangalore within 3 months from date of issue of this letter.
- xvi) Suitable conservation measures to augment ground water resources in the area shall be planned and implemented in consultation with Regional Director, Central Ground Water Board.
- xvii) Detailed hydrological study shall be carried out and implementation of recommendations of the detailed hydrological study shall be ensured.
- xviii) Domestic wastewater shall be treated in sewage treatment plant (STP) and treated domestic effluent shall be used for green belt development within the plant premises. Domestic waste from colony and STP shall be segregated into bio-degradable and non-biodegradable. Bio-degradable waste shall be composted and non-biodegradable waste shall be land filled at identified sites. ETP shall also be provided for workshop and mineral separation plant wastewater.
- xix) 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 natural water course passing through the plant and mine area premises and submit to the ministry's Regional Office at Bangalore.

- xx) The project proponent shall take appropriate mitigative measures to prevent pollution of nearby River and other surface water body, if any.
- xxi) 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.
- xxii) 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.
- xxiii) 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 Bangalore, Central Ground Water Authority and Central Ground Water Board.
- xxiv) 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.
- xxv) All the bag filter dust, raw meal dust, coal dust, clinker dust and cement dust from pollution control devices shall be recycled and reused in the process and used for cement manufacturing. Over burden, bottom ash and mineral waste from mines shall be used for back filling only after ensuring non-hazardous nature. Sludge from domestic sources shall be used as manure for green belt development. The spent oil from the Heavy Earth Moving Equipments shall be used for lighting up the kiln after shut down and shall also be used for lubricating purposes at the stacker/ reclaimer. Waste oil shall be sold to authorized recyclers / reproprocessors only.
- xxvi) Efforts shall be made to use low-grade lime, more fly ash and solid waste in the cement manufacturing.
- xxvii) Fly ash shall be utilized as per the provisions of Fly Ash Notification, 1999 subsequently amended in 2003. Fly ash shall be stored in ash silo and 100% used in making Pozzolona Portland Cement (PPC).
- xxviii) 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° .

- xxix) In the mines, all the overburden rejects shall be stored in the areas earmarked for it separately. Action plan for the mining, management of over burden (removal, storage, disposal etc.), reclamation of the mined out area and mine closure shall be submitted to the Ministry and its Regional Office at Bangalore.
- xxx) Top soil, 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.
- xxxi) 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° . 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, Bangalore on six monthly basis.
- xxxii) The project proponent shall adopt wet drilling blasting method and provision for the control air emissions during blasting using dust collectors etc. shall be used.
- xxxiii) 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. 'No objection certificate' from the Chief Controller of Explosives shall be obtained.
- xxxiv) Bench height, width and slope for individual bench shall be properly assessed and implemented. Adequate measures shall be adopted to stabilize the slope before abandonment. The fencing around the reservoir shall be provided to prevent accidents.
- xxxv) 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.
- xxxvi) 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.
- xxxvii) Mechanized open casting shall be adopted and no change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment & Forests.
- xxxviii) 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, Bangalore.
- xxxix) As proposed, green belt shall be developed in 33 % in and around the plant as per the CPCB guidelines and all the mined out area except used for reservoir. In mining,

plantation shall be carried out by planting the native species around mining lease area, over burden dumps, around water body, roads etc. in consultation with the local DFO / Agriculture Department. At least, 1,500 trees per year shall be planted with a tree density of 2,000 trees per ha. An action plan shall be submitted in this regard.

- xii) Consent to Operate shall be obtained from KPCB before starting enhanced production from the mine.
- xiii) All the safety norms stipulated by the Director General, Mine & Safety (DGMS) shall be implemented.
- xiv) Acoustic enclosures shall be provided to control noise wherever necessary. Mine machine shall be provided with silencers. Noise shall also be controlled from cooler fans, compressor house, cement mill and raw mill, cement plant and drilling machines, excavator, blasting at mine site using appropriate noise control measures.
- xv) A separate budget shall be kept for the occupational health surveillance within and outside the campus in the nearby villages.
- xvi) All the recommendations of the Corporate Responsibility or Environmental Protection (CREP) shall be strictly followed.
- xvii) The Company shall comply with all the commitments made during public hearing meeting held on 28th June, 2008.
- xviii) The company shall provide housing for 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, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

B GENERAL CONDITIONS:

- i) The project authority shall adhere to the stipulations made by Karnataka Pollution Control Board (KPCB) and State Government.
- ii) No further expansion or modification of the plant shall be carried out without prior approval of this Ministry.
- iii) The gaseous and particulate matter emissions from various units shall conform to the standards prescribed by the Karnataka Pollution Control Board. At no time, the particulate emissions from the cement plant shall exceed KPCB limit. 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) One ambient air quality monitoring station shall be installed in downwind direction. Ambient air quality including ambient noise levels shall not exceed the standards stipulated under EPA or by the State authorities.
- v) The company shall undertake eco-development measures including community welfare measures in the project area.

- vi) 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).
- vii) Proper house keeping and adequate occupational health programmes shall be taken up.
- viii) A separate environmental management cell to carry out various management and monitoring functions shall be set up under the control of Senior Executive.
- ix) As proposed, Rs 7.00 Crores for capital and Rs 1.00 Crores shall be earmarked towards total capital cost and recurring cost/annum for environmental pollution control measures and shall be judiciously used to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.
- x) 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 be put on the web site of the company by the proponent.
- xi) The project proponent shall upload the status of compliance of the stipulated environment 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 MOEF at Bangalore, the respective Zonal Office of CPCB and the KPCB. The criteria pollutant levels namely, RSPM, PM₁₀, PM_{2.5}, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- xii) The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEF at Shubaneswar, the respective Zonal Office of CPCB and the KPCB. The Regional Office of this Ministry at Bangalore, CPCB, KPCB shall monitor the stipulated conditions.
- xiii) The environmental statement for each financial year ending 31st 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 environmental conditions and shall also be sent to the respective Regional Offices of the MOEF by e-mail.
- xiv) The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the KPCB and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.nic.in>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers.

that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional office

- xv. 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.

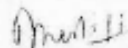
7.0 The Ministry or any other competent authority may stipulate any further conditions on receiving reports from the project authorities. The above conditions shall be monitored by the Regional Office of this Ministry located at Bangalore.

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

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

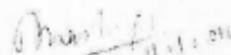
10.0 Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.

11.0 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.


(Dr. P. B. Rastogi)
Director

Copies to

1. The Chairman, Central Pollution Control Board, Parvesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi -110032.
2. The Chairman, Karnataka State Pollution Control Board, 6, 7 & 9th Floor, (Public Utility Building) Subhas Chandra Bose Building, M.G. Road, Bangalore - 560001, Karnataka.
3. The Chief Conservator of Forests (Central), Regional Office (SZ), Kendriya Sadan, 4th Floor, E&F Wing, 17th Main Road, Koramangala, Bangalore-560034, Karnataka.
4. The Secretary, Department of Environment & Forests, Government of Karnataka, Bangalore, Karnataka.
5. Adviser (A-II), Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi- 110003.
6. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi- 110003.
7. Guard file.
8. Monitoring file.
9. Record file.


(Dr. P. B. Rastogi)
Director