

F. No. J-11011/719/2007- IA II (I)  
Government of India  
Ministry of Environment and Forests  
(I.A. Division)

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Dated 20<sup>th</sup> December, 2007

To,

M/s Andhra Cement Ltd.  
2<sup>nd</sup> Floor, Chanderlok Complex  
111, S.D. Road, Secundrabad-500 003  
Andhra Pradesh.

E-mail : [nalwaya@andhracements.com](mailto:nalwaya@andhracements.com) ; Fax No. : 040-27810103, 08649-257429

**Subject : Expansion of Cement Production (0.8 to 2.31 MTPA), Clinker Production (1.00 to 2.00 MTPA) at Village Durgapuram, Mandal Dachepalli, District Guntur and Captive limestone mine (1.50 to 3.00 MTPA) at Village Garualapadu, Mandal Dachepalli, District Guntur, A. P. by M/s Durga Cement Works Limestone Mine and M/s Andhra Cements Ltd. - Environmental clearance reg.**

Sir,

Kindly refer your letter no. ACL/MOEF/REIA/Plant and mine 2007 dated 21<sup>st</sup> June, 2007 alongwith project documents including Application Form, Questionnaire, EIA / EMP Report and subsequent clarifications furnished vide communications dated 12<sup>th</sup> July, 2007, 1<sup>st</sup> September, 2007 and 8<sup>th</sup> October, 2007 regarding above mentioned cement project.

2.0 The Ministry of Environment and Forests has examined your application. It is noted that M/s Andhra Cements Ltd. have proposed for the expansion of Cement (0.8-2.31 MTPA), Clinker production (1.00-2.00 MTPA) and Captive limestone mine (1.50 to 3.00 MTPA) at Garualapadu, Dachepalli, Guntur A. P. and Limestone Mine at Durgapuram, Dachepalli, Guntur, A. P. by M/s Durga Cement Works Limestone Mine and M/s Andhra Cements Ltd.

3.0 Total land acquired for cement plant is 141.574 ha. Expansion of cement plant will be carried out within the existing premises. Total mine lease area is 170.22 ha. Out of 170.22 ha., 120 ha. will be excavated for mining. No forest land and rehabilitation and resettlement is involved. No national park and wildlife sanctuary is located within 10 km. radius of the cement plant. Gamalapadu RF (0.1-0.4 km.), Madinapadu RF (1.2-1.8 km.), Daida RF (4.7-4.9 km.), Saidulnam RF (3.8-5.0 km.), Ravipahad RF (5.3-6.6 km.) and Warivabad RF (6.2-6.8 km) are located within 10 km of the cement plant and mine site. Proven and indicated mineral reserves are 33.34 Million tons and 59.39 Million tons respectively. Mineable reserves are 63.56 Million Tons. Rated Capacity of the mine mineral after expansion will be 3.00 MTPA. Life of the mine at the proposed capacity will be 21 years and mining lease is valid for 20 years upto 18<sup>th</sup> January, 2018. However, limestone is excavated @ 1.5 MTPA will last 24 years and proposed @ 3.0 MTPA in next 5 years (till 2013). Out of 120 ha, 55 ha is already broken for mining and

65 ha. Is yet to be broken. Mining Plan is approved by the Indian Bureau of Mines vide letter dated 31<sup>st</sup> May, 2007. Total capital cost of the cement and mine plant is Rs. 312.70 Crore.

4.0 Ordinary Portland Cement (OPC), Portland Pozzolona Cement (PPC) will be manufactured. Total ground water requirement for cement plant and mining will be 420 and 60 m<sup>3</sup>/day (including 56 m<sup>3</sup>/day mine water) respectively. Mined out area will be developed as artificial reservoir. No wastewater will be discharged.

5.0 Public hearing meeting for the expansion of cement plant and limestone mine was held on 20<sup>th</sup> June, 2007.

6.0. 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. Continuous monitoring system to monitor gaseous emissions shall be provided and limit of SPM shall be controlled within 50 mg/Nm<sup>3</sup> by installing adequate air pollution control system and data submitted to the Ministry's Regional Office at Bangalore, A. P. Pollution Control Board (APPCB) and CPCB regularly.
- ii. The company shall install adequate dust collection and extraction system to control fugitive dust emissions at various transfer points, raw mill handling (unloading, conveying, transporting, stacking), vehicular movement, bagging and packing areas etc. Crusher shall be operated with high efficiency bag filters. All conveyers shall be covered with GI sheets. Covered sheds for storage of raw materials and fully covered conveyers for transportation of materials shall be provided besides coal, cement, fly ash and clinker shall be stored in silos. Pneumatic system shall be used for fly ash handling.
- iii. Secondary fugitive emissions shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed and data submitted to the Ministry's Regional Office at Bangalore, CPCB and APPCB.
- iv. 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, Bangalore.
- v. 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 points, transfer points 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.
- vi. 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.

- vii. **Asphalting/concreting of roads and water spray all around the stockyard and loading / unloading areas in the cement plant shall be carried out to control fugitive emissions.**
- viii. **Total ground water requirement for cement plant and mining shall not exceed 420 and 60 m<sup>3</sup>/day (including 56 m<sup>3</sup>/d mine water) respectively. All the treated wastewater shall be recycled and reused in the process and/or for ash quenching, dust suppression, green belt development and other plant related activities etc. No process wastewater shall be discharged outside the factory premises and 'zero' discharge shall be adopted.**
- ix. **'Permission' for the drawl of ground water from SGWB / CGWA shall be obtained. Mined out area shall be developed as artificial reservoir. The water stored in the artificial reservoir made in the mine pit shall be used maximum to reduce ground water consumption.**
- x. **Sewage treatment plant (STP) shall be installed for the colony. 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 should also be provided for workshop and mineral separation plant wastewater.**
- xi. **The project proponent shall ensure that no natural watercourse shall be obstructed due to any mining operations.**
- xii. **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. Sludge from domestic sources shall be used as manure for green belt development. Waste oil shall be sold to authorized recyclers / reprocessors only.**
- xiii. **An effort shall be made to use of high calorific hazardous waste in the cement kiln and necessary provision shall be made accordingly.**
- xiv. **Efforts shall be made to use low grade lime, more fly ash and solid waste in the cement manufacturing.**
- xv. **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.**
- xvi. **The top soil and solid waste shall be stacked separately at specified dumping site with proper safeguards. Top soil shall be used for the plantation / green belt development during reclamation and solid waste for backfilling.**
- xvii. **The over burden (OB), inter burden and other waste generated from mines, if any, shall be stacked at the earmarked dump sites only and should not be kept active for long period. Backfilled OB dumps shall be scientifically vegetated with suitable native species to prevent erosion and surface run off. Monitoring and management of reclaimed areas shall continue until the vegetation becomes self-sustaining. Regular**

- compliance shall be submitted to the Ministry and its Regional Office at Bangalore on six monthly basis.
- xviii. The area for external over burden dump shall be reduced 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  $28^{\circ}$ .
- xix. Garland drains shall be constructed to arrest silt and sediment flows from soil. The water so collected shall be used for watering the mine area, haul roads, green belt development etc. The drains shall be regularly de-silted and maintained properly.
- xx. Suitable rainwater harvesting and conservation measures to augment groundwater resources in the area on long term basis shall be planned and implemented in consultation with Regional Director, Central Ground Water Board in cement plant and mining area to augment ground water resources and use for dust suppression and horticulture.
- xxi. Regular monitoring of ground water level and quality shall be carried out by establishing a network of existing wells and new peizometers at suitable locations by the project proponent in and around project area in consultation with Regional Director, Central Ground Water Board during the mining operation. The ground water monitoring shall be carried out 4 times in a year i.e. pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and data thus collected shall be regularly sent to the Ministry, its Regional Office at Bangalore, Central Ground Water Authority and State Ground Water Board, Bangalore.
- xxii. The project proponent shall take appropriate mitigative measures to prevent pollution of nearby River and other surface water body, if any.
- xxiii. Deep hole wet drilling sequential blasting method shall be adopted and provision for the control air emissions during blasting using dust collectors/ extractors etc. shall be made. Blasting operation shall be carried out during the daytime only and one bench at a time shall be blasted. 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.
- xxiv. Out of total 141.574 ha., green belt shall be developed in at least 36 ha. (25 %) in and around the cement plant as per the CPCB guidelines to mitigate the effects of air emissions in consultation with local DFO. In mining, out of 170.22 ha., plantation shall be raised in an area of 46.72 ha. 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.
- xxv. The void left unfilled 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.

- xxvi. The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna. 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 from the date of issue of this letter.
- xxvii. 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.
- xxviii. 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.
- xxix. Consent to Operate shall be obtained from APPCB before starting enhanced production from the mine.
- xxx. 'Permission' of the State Forest Department shall be obtained regarding impact of cement plant and mining activities on the surrounding 6 reserve forests viz. Gamalapadu RF (0.1-0.4 km.), Madinapadu RF (1.2-1.8 km.), Daida RF (4.7-4.9 km.), Saidulnam RF (3.8-5.0 km.), Ravipahad RF (5.3-6.6 km.) and Warivabad RF (6.2-6.8 km) and all the recommendations shall be followed.
- xxxi. The company shall obtain necessary clearances / approval from the concerned Departments i.e. Indian Bureau of Mines, State Government, MoEF etc. for the linked mining component before undertaking any construction activity at the project site.
- xxxii. Rehabilitation and Resettlement Plan for the project affected population as per the policy of the State Govt. shall be prepared and implemented.
- xxxiii. 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.
- xxxiv. All the safety norms stipulated by the Director General, Mine & Safety (DGMS) should be implemented.

**B. General Conditions :**

- i. The project authority shall adhere to the stipulations made by Andhra Pradesh Pollution Control Board (APPCB) 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 T.N. Pollution Control Board. At no time, the particulate emissions from the cement plant shall exceed APPCB 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. Monitoring of ambient air quality and stack emissions shall be carried out regularly in consultation with APPCB and report submitted to the APPCB quarterly and to the Ministry's Regional Office at Bangalore half-yearly.
- v. The company must harvest the rainwater from the rooftops and storm water drains to recharge the ground water and use the same water for the various activities of the project to conserve fresh water.
- vi. The company shall undertake eco-development measures including community welfare measures in the project area.
- vii. 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).
- viii. All recommendations made in the Corporate Responsibility for Environment Protection (CREP) for cement plants shall be implemented.
- ix. Proper house keeping shall be taken up. Regular annual medical examination of all the employees shall be carried out from the occupational health point of view and records maintained.
- x. A separate environmental management cell to carry out various management and monitoring functions shall be set up under the control of Senior Executive.
- xi. As proposed in EIA/EMP, Rs. 28.00 Crores and Rs. 0.95 Crores earmarked towards the capital cost and recurring cost/annum respectively for environment pollution control measures for the cement plant and Rs. 35.00 Lakhs and Rs. 23.2 Lakhs earmarked towards the capital cost and recurring cost/annum respectively for environment pollution control measures for the mine shall be suitably 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.
- xii. The Regional Office of this Ministry at Bangalore / CPCB / APPCB shall monitor the stipulated conditions. A six monthly compliance report and the monitored data alongwith statistical interpretation shall be submitted to them regularly.
- 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.

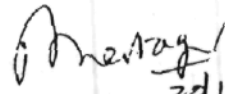
- xiv. The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the A.P. Pollution Control Board / Committee and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.nic.in>. This should 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 at Bangalore.

7.0 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 located at Bangalore.

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

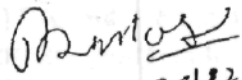
9.0 Any other conditions or alteration in the above conditions shall have to be implemented by the project authorities in a time bound manner.

10.0 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.

  
29/11/07  
(Dr. P. B. Rastogi)  
Additional Director

Copy to:

1. The Secretary, Department of Environment and Forests, Govt. of Andhra Pradesh, Mantralaya, Hyderabad, A.P.
2. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110032.
3. The Chairman, Andhra Pradesh Pollution Control Board, Paryavaran Bhavan, A-3, Industrial Estate, Sanathnagar, Hyderabad - 500 018, Andhra Pradesh.
4. The Chief Conservator of Forests (Central), Ministry of Environment & Forest, Regional Office (SZ), Kendriya Sadan, IV<sup>th</sup> Floor, E & F Wing, 17<sup>th</sup> Main Road, Koramangla, Bangalore 560 034, Karnataka.
5. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi-110003.
6. Guard file.
7. Monitoring file.
8. Record file.

  
20/12/07  
(Dr. P. B. Rastogi)  
Additional Director