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AGN (C/C)
Rade
K. Rao (C/O)

F. No. J-11011/403/2006- IA II (I)
Government of India
Ministry of Environment and Forests
(I.A. Division)



Paryavaran Bhawan
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New Delhi - 110 003

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Dated 9th June, 2009

To, ✓
Senior Vice President (Mfg.)
M/s Madras Cements Ltd.
Kumarasamy Raja Nagar Post
Taluk Jaggayyapet
District Krishna - 521 457
Andhra Pradesh

E-mail : mcljpm@madrascements.co.in / pmr@madrascements.co.in /
arumugarajan@yahoo.com ;
Fax No. : 08654-222532 ;

Subject : Modernization and Expansion of Kumarasamy Raja Nagar Cement Plant (Clinker, 2.5 MTPA to 2.80 MTPA & Cement, 2.60 MTPA to 3.65 MTPA) at Village Jayanthipuram, Mandal Jaggayyapet, District Krishna, Andhra Pradesh by M/s Madras Cements Ltd.-Environment clearance reg.

Ref. : Your letter no. MCL/MoEF/4631/2009 dated 12th February, 2009.

Sir,

Kindly refer your letter no. MCL/MoEF/4631/2009 dated 12th February, 2009 alongwith project documents including Application Form I and Prefeasibility Report and subsequent clarifications furnished vide communications dated 29th April, 2009 & 4th May, 2009 regarding above mentioned project.

2.0 The Ministry of Environment and Forests has examined your application. It is noted that the proposal is for the modernization and expansion of Kumarasamy Raja Nagar Cement Plant (Clinker, 2.5 MTPA to 2.80 MTPA & Cement, 2.60 MTPA to 3.65 MTPA) at Village Jayanthipuram, Mandal Jaggayyapet, District Krishna, A. P. by M/s Madras Cements Ltd. Existing cement plant is located in 248.08 ha. No additional land will be required for proposed expansion. Jaggayapeta Extension RF (0.2-10.5 km, E-S), Budavada RF (3.2-10.5 km, W), Ballusupadu RF (6-11 km, WNW), Gandrayi RF (8.5-11 km, NNW) and Kuntimaddi RF (8 km, SSE) are located within 15 km radius of the proposed project site. Total cost of the proposed expansion and modernization is Rs. 55.00 Crores. The existing plant is supported by its captive power plant (2x18 MW) and captive lime stone mine (Jayanthipuram-North & South bands and Ravirala (F), 3.0 MTPA). Following are the details of existing and proposed production capacities:

Line	Existing facilities			Proposed facilities		
	Kiln Capacity	Clinker	Cement	Kiln Capacity	Clinker	Cement
Line-I	3250 TPD	1.12 MTPA	1.60 MTPA	3500 TPD	1.22 MTPA	2.10 MTPA
Line-II	4000 TPD	1.38 MTPA	1.00 MTPA	4500 TPD	1.58 MTPA	1.55 MTPA
Total		2.50 MTPA	2.60 MTPA		2.80 MTPA	3.65 MTPA
Captive Power Plant (2x18 MW)Captive Lime stones (3.0 MTPA)						

3.0 Electrostatic precipitators (ESPs), bag house and pulse jet bag filters will be provided to control gaseous emissions within 50 mg/Nm³. Total water requirement from bore wells and mine pit will be 6,630 KLD. All the treated wastewater from the cement plant will be used for dust suppression and green belt development. 'Zero' discharge would be maintained. Dust collected from the various air pollution control devices like bag house/filters, ESPs etc. will be totally recycled in the process for cement manufacture. The entire ash generated from thermal power plants will be used in PPC manufacture.

4.0 Public hearing is exempted under section 7(ii) of EIA Notification, 2006.

5.0 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) Continuous stack monitoring facilities to monitor gaseous emissions from all the stacks shall be provided. After expansion, limit of SPM shall be controlled within 50 mg/Nm³ by installing adequate air pollution control system viz. Electrostatic precipitators, bag house, bag filters etc. Data on ambient air, fugitive and stack emissions shall be submitted to the Ministry's Regional Office at Bangalore, A.P. Pollution Control Board (APPCB) and CPCB regularly.
- 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) As proposed, Electrostatic precipitators (ESPs) to clinker, bag house to kiln / raw mill, coal mill and pulse jet bag filters to cement mill and slag mill shall be provided to control gaseous emissions within 50 mg/Nm³. Bag filters shall also be provided at transfer points. Water sprinklers shall be provided to control dust emissions in cement plant and mine area.
- iv) Ambient air monitoring shall be carried out in and around the project site and efforts shall be made to control and minimize the particulate matters to bare minimum. One ambient air quality monitoring station shall be installed in downwind direction. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the CPCB in this regard.

- v) 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. 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.
- vi) Data on ambient air quality, stack emissions and fugitive emissions shall be regularly submitted on-line to the Ministry's Regional Office at Bangalore, Central Pollution Control Board (CPCB) and A.P. Pollution Control Board (APPCCB) as well as hard copy once in six months. Data on SPM, SO₂ and NO_x shall also be displayed outside the premises at the appropriate place for the general public.
- vii) Asphalting/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.
- viii) 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 shall be followed.
- ix) 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. Vehicular emissions shall be regularly monitored.
- x) Total water requirement for cement plant from bore wells / mine pit water shall not exceed 6,630 m³/day. The wastewater from boiler blow down, DM plant regeneration waste water, UF & RO rejects shall be neutralized in neutralization tank and mixed with cooling tower blow down in a Central Monitoring Basin (CMB) and used for green belt development. 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 shall be adopted.
- xi) 'Permission' for the drawl of 6,630 m³/day ground water / mine pit water shall be obtained from the Central Ground Water Authority / State Ground Water Board (GGWA / SGWB) and a copy of the letter shall be submitted to the Ministry's Regional Office at Bangalore within 3 months of issue of the environment clearance.
- xii) All the bag filter dust, raw meal dust, coal dust, clinker dust and cement dust from air pollution control devices shall be recycled and reused in the process and used for cement manufacturing. The sludge from sewage treatment plant (STP) shall be used as manure for green belt development. Organic wastes shall be subjected to vermin composting and used as manure for green belt. Inorganic wastes (papers and other wastes) shall be properly disposed off or sold to rag pickers/scrap dealers. Used oil

and batteries shall be used in kiln as an alternate fuel and / or 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) All the fly ash shall be utilized as per Fly Ash Notification, 1999 subsequently amended in 2003. Efforts shall be made to use fly ash and slag maximum in making Pozzolona Portland Cement (PPC) and Portland Slag Cement (PSC).
- xvi) As proposed, green belt shall be developed in 172.75 ha (69.63%), out of total 248.08 ha. Area in and around the cement plant as per the CPCB guidelines to mitigate the effects of air emissions in consultation with local DFO.
- xvii) Permission and recommendations of the State Forest Department regarding impact of proposed plant on surrounding reserve forests viz. Jaggayapeta Extension RF (0.2-10.5 km, E-S), Budavada RF (3.2-10.5 km, W), Ballusupadu RF (6-11 km, WNW), Gandrayi RF (8.5-11 km, NNW) and Kuntimaddi RF (8 km, SSE) shall be obtained and implemented. Further, Conservation Plan for the conservation of wild fauna in consultation with the State Forest Department shall be prepared and implemented.
- xviii) All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Cement plants shall be implemented.
- xix) 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, crèche 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 Andhra Pradesh Pollution Control Board (APPCCB) 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 A.P. Pollution Control Board. At no time, the particulate emissions from the cement plant shall exceed APPCCB 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. 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 APPCCB 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. Occupational health surveillance programme shall be done on a regular basis and records maintained. The programme must include lung function and sputum analysis tests once in six months.
- xii. As proposed, Rs. 2.00 Crores and Rs. 2.50 Crores shall be earmarked towards the total capital cost and recurring cost/annum for environmental pollution control measures and shall be suitably used to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. Rs. 25.00 Lakhs and Rs. 25.00 Lakhs earmarked towards EMP/green belt and occupational health per annum and Rs. 50.00 Lakhs earmarked for corporate social responsibility shall be judiciously utilized and regular report shall be submitted to the Regional Office of this Ministry at Bangalore. The funds so provided shall not be diverted for any other purpose.
- xiii. 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.
- xiv. 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.
- xv. 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 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 at Bangalore.

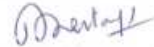
6.0 The Ministry or any other competent authority may stipulate any further condition(s) on receiving reports from the project authorities. The above conditions shall be monitored by the Regional Office of this Ministry located at Bangalore.

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.

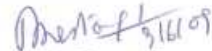
10.0 The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 the Air (Prevention and Control of Pollution) Act, 1981 the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments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



(Dr. P. B. Rastogi)
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, IVth Floor, E & F Wing, 17th Main Road, Koramangla, Bangalore 560 034, Karnataka.
5. Adviser, IAI(I), 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