

F. No. J-11011/110/2011-IA-II (I)  
Government of India  
Ministry of Environment and Forests  
(I.A. Division)

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Dated 29<sup>th</sup> November, 2012

To,  
The Technical Director  
M/s Chettinad Cement Corporation Limited  
Rani Meyyammai Nagar, Karikkali PO, Guziliamparai (Via)  
Taluk Vedasandur, District Dindigul - 624 703  
Tamil Nadu

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Sub: Expansion of Cement Plant from 4.5 MTPA to 7.0 MTPA along with Captive Power Plant from 48 MW to 78 MW by addition of Cement Line-III of 2.5 MTPA and CPP of 1x30 MW at Villages Karikkali and Dholipatti, Taluk Vedasandur, District Dindigul in Tamil Nadu by **M/s Chettinad Cement Corporation Limited - regarding Environmental Clearance**

Sir,

This has reference to your letter no. Chettinad Cement/Karikkali/Expn/EC/1992 dated 12.02.2011 and subsequent letter dated 27.03.2011 along with copies of EIA/EMP reports seeking environmental clearance under the provisions of EIA Notification, 2006.

2. The Ministry of Environment and Forests has examined your application M/s Chettinad Cement Corporation Ltd. have proposed for expansion of Cement Plant from 4.5 MTPA to 7.0 MTPA along with Captive Power Plant from 48 MW to 78 MW by addition of Cement Line-III of 2.5 MTPA and CPP of 1x30 MW along with 6 MW WHRB at Villages Karikkali and Dholipatti, Taluk Vedasandur, District Dindigul in Tamil Nadu. Total land area envisaged for the proposed expansion project is 132.76 hectares and 33% of the total plant area will be developed with greenbelt including existing plant area. No National parks/Wildlife sanctuaries are situated within the 10 Kms. radius of the site. Thoppasamymalai Reserve Forest exist at a distance of 7.0 Kms. Kodaganar River is flowing at distance of 9.5 Kms. from the proposed site. No forest land is involved in the proposed project site. The cost of the project is Rs 565.0 crore, Rs. 60 crore and Rs. 2 crore/annum will be earmarked towards capital cost and recurring cost for environmental pollution control measures.

3. Following is the plant configuration:

S.N.	Plant configuration	Capacity		
		Existing	Proposed Expansion	After proposed expansion
1.	Cement plant			

*As*

	Cement Plant (Ordinary Portland Cement, Portland Pozzolona Cement & Portland Slag Cement)	4.5 MTPA	2.5 MTPA	7.0 MTPA
	Waste Heat Recovery based power plant	--	6 MW	6 MW
2.	<b>Power plant</b>			
	Coal based power plant (though FBC boiler)	48 MW	30 MW	78 MW

4. Limestone, Iron ore, Bauxite, Gypsum, Slag, Fly ash and Coal will be the raw materials used in the manufacturing of cement and in power plant. Limestone will be sourced from captive mines. Iron ore will be sourced from the Kadapa/Kurnool. Coal will be imported from Indonesia. The company has signed MoU with M/s. PT CEG Resources for supply of imported coal. Power requirement will be met from captive power plant. DG sets will be installed.

5. Ambient air quality monitoring was carried out at 8 locations during March 2011 to May 2011 and the data indicate the values as PM<sub>2.5</sub> (24.1 ug/m<sup>3</sup> to 37.1 ug/m<sup>3</sup>), PM<sub>10</sub> (36.0 ug/m<sup>3</sup> to 54.6 ug/m<sup>3</sup>), SO<sub>2</sub> (7.0 ug/m<sup>3</sup> to 28.4 ug/m<sup>3</sup>) and NOx (8.7 ug/m<sup>3</sup> to 33.8 ug/m<sup>3</sup>). The incremental values of GLCs due to the proposed expansion are PM<sub>10</sub> (0.4 ug/m<sup>3</sup>), SO<sub>2</sub> (3.8 ug/m<sup>3</sup>) & NOx (1.8 ug/m<sup>3</sup>). The resultant concentrations are within the permissible limit. The major pollutants expected from the power plant will be PM, SO<sub>2</sub> and NOx.

6. ESPs to cooler and CPP, bag house to kiln/raw mill and coal mill and bag filters to cement mill and packing plants will be provided to control the particulate emissions below 50 mg/m<sup>3</sup>. Efficient bag house for Kiln/Raw mill & Coal mill, ESPs for Cooler Vent and Bag filters for Cement mill, packing plants will be provided to control PM emissions < 50 mg/m<sup>3</sup>. Fugitive emissions from limestone handling, coal handling, clinker hopper, storage silos, weight feeders, grinding mills and packing machines will be controlled by providing covered sheds for storage of raw materials, fully covered conveyors for transportation of materials, etc.

7. The proposed expansion project requires about 800 m<sup>3</sup>/d of water. The total water consumption after proposed expansion will be 3,000 m<sup>3</sup>/d. Water required for proposed plant will be sourced from rain water harvested in mine pits. No industrial wastewater will be generated from the cement plant. Wastewater will be generated from captive power plant will be treated in ETP. All the treated wastewater will be used for ash conditioning, dust suppression and green belt development. Oil & grease will be removed and treated in a neutralization pit.

8. The dust collected from the various air pollution control measures like bag houses/filters, ESPs etc. will be totally recycled in the process for cement manufacturing. Fly ash will be pneumatically transported to the cement plant to be used in the cement manufacturing.

9. The cement plants with capacity more than 1.0 MTPA are listed at Schedule No. 3(b) under category 'A' of the EIA Notification, 2006 and appraised by the Expert Appraisal Committee (Industry-I) of Ministry.

10. The proposal was considered by the Expert Appraisal Committee during the meeting held during 24<sup>th</sup> - 25<sup>th</sup> May, 2012. Public hearing for the project was held on 21<sup>st</sup> March, 2012.

11. Based on the information submitted by you, presentation made by you and consultant, M/s Pioneer Enviro Laboratories and Consultants Pvt. Ltd. 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:

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#### A. SPECIFIC CONDITIONS

- i. The company shall comply with the conditions stipulated in the environmental clearance and NOC granted by the SPCB for the existing plant.
- ii. Continuous stack monitoring facilities to monitor gaseous emissions from all the stacks shall be provided. After expansion, limit of PM shall be controlled within 50 mg/Nm<sup>3</sup> by installing adequate air pollution control system. Electrostatic precipitators to clinker cooler, bag house to raw mill/kiln and bag filters to coal mill and cement mill. Low NO<sub>x</sub> burners should be provided to control NO<sub>x</sub> emissions.
- 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. Total water requirement for proposed expansion shall not exceed 800 m<sup>3</sup>/day. Efforts shall be made to further reduce water consumption by using air cooled condensers. 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.
- vii. 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.
- viii. 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 E(P) 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.
- ix. 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.
- x. All the fly ash shall be utilized as per Fly ash Notification, 1999 subsequently amended in 2003 and 2009. Efforts should be made to use fly ash maximum in making Pozollona Portland Cement (PPC).
- xi. Efforts shall be made to use low-grade lime, more fly ash and solid waste in the cement manufacturing.
- xii. Measures shall be taken to use of high calorific hazardous waste in the cement kiln and necessary provision should be made accordingly.

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- 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. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 21<sup>st</sup> March, 2012 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.
- xvi. 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.
- xvii. 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.
- xviii. 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 authorities must strictly adhere to the stipulations made by the Tamil Nadu State Pollution Control Board and the State Government.
- ii. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.
- iii. The gaseous emissions from various process units shall conform to the load/mass based standards notified by this Ministry on 19<sup>th</sup> May, 1993 and standards prescribed from time to time. The State Pollution Control Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location.
- iv. At least four ambient air quality monitoring stations should be established in the downward 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 emission shall be regularly submitted to this Ministry including its Regional Office at Bangalore and the SPCB/CPCB once in six months.
- v. Industrial wastewater shall be properly collected, 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.

- 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 EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).
- vii. Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- viii. The company shall develop surface water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.
- ix. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.
- x. The requisite amount shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Bangalore. The funds so provided shall not be diverted for any other purpose.
- xi. 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.
- xii. 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 SPCB. The criteria pollutant levels namely; PM10, SO<sub>2</sub>, NO<sub>x</sub> (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.
- xiii. 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, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bangalore/ CPCB / SPCB shall monitor the stipulated conditions.
- xiv. 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 environmental conditions and shall also be sent to the respective Regional Office of the MOEF at Bangalore by e-mail.

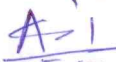
xv. The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.nic.in>. This shall 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 should be forwarded to the Regional office at Bangalore.

xvi. 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.

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.

  
(A.N. Singh)  
Dy. Director (S)

**Copy to:**

1. The Secretary (Environment), Govt. of Tamil Nadu, Fort. St. George, Chennai- 600009.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
3. The Chairman, Tamil Nadu Pollution Control Board, 100, Anna Salai, Guindy, Chennai – 600032.
4. The Chief Conservator of Forests (Central), Regional Office (SZ), Kendriya Sadan, IV<sup>th</sup> Floor, E&F Wings, 7<sup>th</sup> Main Road, II<sup>nd</sup> Block, Koramangala, Bangalore-560034.
5. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Guard File / Monitoring File / Record File.

  
(A.N. Singh)  
Dy. Director (S)