

**F.N. J-11011/57/2011-IA.II(I)**  
Government of India  
Ministry of Environment, Forest & Climate Change

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To

Dated: 31<sup>st</sup> January, 2017

**The Technical Director,**  
M/s Chettinad Cement Corporation Ltd.,  
4th Floor, Rani Seethai  
Hall Building, 693,  
Anna Salai, CHENNAI - 600 006.

**Sub: Expansion of integrated Cement Plant (from 2.5 MTPA to 8.25 MTPA capacity) and WHRB (from 7 MW to 27 MW) and CPP (from 30 MW to 160 MW) of M/s Chettinad Cement Corp. Ltd. at villages Sangem & Kallur, Taluka Chincholli, Dist. Gulburga, Karnataka – Corrections in the Environment Clearance letter regarding.**

Sir,

This has reference to your letter No. Chettinad Cement/Kallur Plant Expansion/MoEF/EC dated 3<sup>rd</sup> November, 2015 regarding the subject mentioned above.

2.0 The environmental clearance to the project was accorded by the Ministry vide letter of even No. dated 20<sup>th</sup> October, 2015. It has been requested for several corrections in the environmental clearance letter, therefore the Ministry has decided to refer the matter to Expert Appraisal Committee. The matter was discussed in the 10<sup>th</sup> meeting of EAC (Industry-I) and the Committee recommended the proposal for the corrections. Accordingly the Ministry has decided to issue the corrected environmental clearance letter.

3.0 The Cement Plant-cum-CPP-WHRB proposal is for seeking EC for Expansion of Integrated Cement Plant (from 2.5 MTPA to 8.25 MTPA capacity) and WHRB (from 7 MW to 27 MW) and CPP (from 30 MW to 160 MW) of M/s Chettinad Cement Corp. Ltd. at Dist. Gulburga, Karnataka. A common EIA-EMP report was prepared for Cement Plant with WHRB, CPP & Captive Limestone Mine and a common public hearing was held thereon on 09.10.2013. Capital cost of the project is Rs 2010 crores.

4.0 The details of the proposed expansion are as given below:

S.N.	Facility/Project	Existing	Proposed	Total
1.	Captive Limestone Mines (MTPA)	4	6	10
2.	Cement Plant (Ordinary Portland Cement, Portland Pozzolona Cement, & Portland Slag Cement) (MTPA)	2.5	5.75	8.25
3.	Waste Heat Recovery Boiler (WHRB) (MW)	7	20	27
4.	Captive Power Plant (MW)	30	130	160

5.0 The total land area for the project is 177.28 ha of which Plant is 133.55 ha and colony is 43.73 ha. Entire land is private land. No forestland is involved. River Mullameri flows at a distance of 0.4km. A number of cement and other industries are located within 10km of the project site. A few RFs exist in the 10km study area – Chincholi RF (5.8km), Ramachandrapur RF (8.6km) and Gingurti RF (9.2km). Chincholi WL Sanctuary is found at a distance of 5.8 km from the plant site. The WL Sanctuary has been notified on 28.11.2011. No R&R is involved as expansion is within existing premises. No litigation/court cases are pending against the project.

6.0 The total water requirement for the expansion project is 2940 m<sup>3</sup>/d includes make-up water for Cement Plant, Captive Power Plant, Central Workshop, Township and domestic water and will be sourced from groundwater and River Mullameri flowing at a distance of 0.4km from the project site. The total water requirement for proposed expansion of Captive Limestone Mine will be 130 m<sup>3</sup>/day for dust suppression and for greenbelt development, which will be sourced from mine pit water and ground water source. Ground water level in the area is in the range of 4.4m-26.6m bgl (Kallur (26.6m), Sangam Kallar (7.4m), Soma Lingadahalli (8.2m), Chikka Lingadahalli (4.4m) and Bhaktampalli (8.62m) bgl respectively). Permission for drawl of groundwater for the existing operations has been obtained from Central Ground Water Board Authority dated 01.07.2013 for abstraction of 900m<sup>3</sup>/d of groundwater. Permission for use of groundwater for the expansion project shall be obtained from CGWA. Permission for drawl of water from River Mulalmari to the extent of 2500m<sup>3</sup>/d (0.089Mcf or 21.36 Mcft for 240 days in year) has been obtained vide letter No. KNNL/CEG/TA-2/AE-1/2010-11/559 dated 09.05.2010. The total waste water generation from Cement Plant, WHRB, Captive Power Plant, Workshop, Colony and Captive Limestone Mines of the expansion project will be 979 m<sup>3</sup>/day.

7.0 The treated wastewater will meet the standards prescribed by KSPCB.

S.N.	Process/Unit	Wastewater Generation (Existing project after Treatment) (m <sup>3</sup> /d)	Wastewater Generation after Treatment (Proposed expansion project) (m <sup>3</sup> /d)	Total Wastewater generation after Treatment (m <sup>3</sup> /d)
1.	Process wastewater from Cement and Plant	156	831	987
2.	Domestic wastewater from Plant, Mines & Colony	150	148	298
	<b>TOTAL</b>	<b>306</b>	<b>979</b>	<b>1285</b>

Out of the entire 1285 m<sup>3</sup>/d of treated wastewater generated, an amount of 250m<sup>3</sup>/d will be utilized for cooling cement plant equipment, ash handling and dust suppression in CHP, 127 m<sup>3</sup>/day will be used for ash conditioning and 908 m<sup>3</sup>/d will be used for greenbelt development. No effluent is being discharged outside the premises.

8.0 AAQ monitoring of stations at 12 locations indicate that the levels of PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> are within prescribed limits. AQIP Modeling indicates a GLC concentration of PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub> to be 64.1, 47.5 and 40.1 ug/m<sup>3</sup> respectively due to the proposed expansion, which is within prescribed limits. The major air pollution control measures

includes ESP in Stack of Cement Cooler and Power Plant Boiler, bag houses to kiln/raw mill, coal mill and cement mill. Bag filters and vent will also be provided to coal crusher, silos and transfer points of conveyors. Dust suppression systems will be provided at raw material unloading areas. All internal roads will be concreted/black topped. Adequate truck parking area will be provided. Fugitive emissions will be regularly monitored as per GSR 414(E) dated 30.05.2008 and the compliance reports submitted. Transportation of cement will be by rail/road. Of total plant area of 133.55 ha, an area of 51.5 ha shall be developed as greenbelt within the plant premises as per CPCB guidelines. A 15m wide greenbelt will be developed all around the plant. It is proposed to utilize high calorific wastes such as chemical wastes, distillation residues, refuse derived fuels, etc as alternate fuels based on availability and composition. The proposed cement plant kiln will be provided with a flexible fuel feeding system to enable use of hazardous wastes such as oil sludge, cut tyres, etc.

9.0 A WHRB for recovery of heat from the rotary kiln of the cement unit would be installed to generate 20MW power, in addition to the existing WHB of 7MW capacity. The entire fly ash generated from the Captive Power Plant will be utilized in cement manufacturing and the shortfall in the fly ash requirement will be sourced from other thermal power plants.

10.0 Chincholi RF exists within 10km of the project site and Chincholi Wildlife Sanctuary at a distance of 5.8km was notified as a WL Sanctuary on 28.11.2011. As the WL sanctuary was not in existence at the time of obtaining the EC – J-11011/399/2008-IA.II(I) dated 18.06.2010, there was no requirement for obtaining WL clearance from the NBWL. A number of Schedule-I fauna such as Black Buck, Indian Wolf, Leopard, Indian Mud Turtle, common Indian Lizard, Python etc are found in the RF and WL Sanctuary. An application for NBWL clearance has been made to CCF on 09.05.2013 for the existing project and OM 16.01.2014 for the expansion project. A Wildlife Conservation Plan for the existing project is under implementation for Rs 250 lakhs and Rs 56.80 lakhs for afforestation in the unclassified forest in Sy. No. 23/1 of Ganganpalli of Chincholi Taluk (Total cost of WL Conservation Plan = Rs. 306.80 lakhs). An additional Rs 25 lakhs is proposed for implementation of the WL Plan within the 10km radius of the project. This includes construction of a check dam (Rs 5 lakhs), construction of 2 ponds (1 lakh), Construction of nala bund(1) of Rs 2 lakh each, eradication of exotic species /weeds and sowing of grass (Rs 15 lakhs) and other measures (Rs 2 lakhs). The application dated 16.01.2014 has been made to the CCF, Gulbarga for forwarding the recommendations of the SWLB to the SCWL of the NBWL for the proposed expansion.

11. The total cost of the project is Rs 2610 crores and cost of proposed expansion project is Rs 2010 crores, of which 5% (Rs 100.5 crores) is earmarked for CSR for the next 25 years and an expenditure of Rs 4.02 crores is proposed per year. The capital cost of environmental management plan is Rs 60 crores and the recurring cost is Rs 2 crores. It was stated that there are 127 land losers, but no displaces. Of the 127 land losers, 83 have been employed so far.

12.0 Public Hearing was conducted on 09.10.2013 Chaired by Deputy Commissioner, Gulbarga in the premises of the project site. The people who attended the P.H. have supported the project. However, some complaints have been also received particularly regarding the proposed expansion vis-à-vis the operation of the plant near the WL Sanctuary, use of river water of Mullameri, developmental activities in the area and providing employment. The issues raised in the P.H. include measures for pollution control, welfare measures, roads, land purchase rate and compensation, employment, etc. It was clarified that no additional land is required for the expansion project. The PP has provided details on how these have been /are being addressed.

13.0 The proposal was considered by the Expert Appraisal Committee (Industry) in its 22<sup>nd</sup> meeting held on 28th-29th August 2014. The Committee after deliberations recommended the project for environmental clearance subject to stipulation of specific conditions along with other environmental conditions.

14.0 The Ministry of Environment, Forest and Climate Change has considered the application based on the recommendations of the Expert Appraisal Committee (Industry) and hereby decided to grant Environmental Clearance to the above mentioned proposal for integrated Cement Plant (from 2.5 MTPA to 8.25 MTPA capacity) and WHRB (from 7 MW to 27 MW) and CPP (from 30 MW to 160 MW) of M/s Chettinad Cement Corp. Ltd. subject to strict compliance of the following Specific and General conditions:

**SPECIFIC CONDITIONS:**

- i. Prior clearance from the Standing Committee of the National Board for Wildlife shall be obtained due to location of the plant at a distance of 5.8 Km from Chincholi Wildlife Sanctuary (as prior clearance of NBWL is required for a project if it is located in 10 km of a Protected Area/Sanctuary or Eco Sensitive Zone as per the Hon'ble Supreme Court order dated 4.12.2006 in W.P. 460/2004), before commencing any activity relating to the project at site. All the conditions stipulated by the Standing Committee shall be effectively implemented in the project. It shall be noted that this clearance does not necessarily implies that wildlife clearance shall be granted to the project and that your proposal for wildlife clearance shall be considered by the competent authorities on its merit and decision taken. The investment made in the project, if any based on environmental clearance granted to the project, in anticipation of the clearance from wildlife angle shall be entirely at the cost and risk of the project proponent and Ministry of Environment, Forest and Climate Change shall not be responsible in this regard, in any manner.
- ii. The project proponent should install 24x7 air monitoring devices to monitor air emission, as provided by CPCB and submit report to Ministry and its Regional Office.
- iii. The expansion project shall comply with the new MOEF&CC Standards vide GSR 612 (E) dated 25.08.2014 with respect to particulate matter, SO<sub>2</sub>, NO<sub>x</sub> for Cement sector.
- iv. After expansion, limit of PM shall be controlled to meet prescribed standards 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 shall be provided to control NO<sub>x</sub> emissions. Regular calibration of the instruments must be ensured.
- v. All the pollution control devices/equipment in raw mill/kiln, kiln feeding system, clinker cooler, coal mill, cement mill, and cement silo, shall be interlocked so that in the event of the pollution control devices/systems not working, the respective unit(s) shut down automatically.
- vi. 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.



- vii. The proponent shall provide an interlocking system to ensure that whenever the ESP is not in operation, the raw material feeder will automatically stop and restart only with the restart of ESP.
- viii. The proponent shall monitor the groundwater regime of the study area, by installing piezometers in and around the impact zone of the project site and collect data of groundwater (level as well characteristics) and the same shall be furnished as part of the Compliance Report to MOEF&CC, RO, Bangalore. In case of declining levels, prior approval shall be obtained from the State Ground Water Board.
- ix. The proponent shall obtain prior permission from the State Irrigation Dept, Govt. of Karnataka for use of water from River Mullumari after undertaking a study of use of the River water by competing users and availability, particularly during season.
- x. The proponent shall obtain prior approval of the Karnataka Ground Water Authority (KGWA) for drawl of groundwater for the expansion project.
- xi. The proponent shall create rainwater harvesting structures including creation of 6 ponds of a total combined capacity of 902,000m<sup>3</sup>. The total water requirement for the Cement-cum-Power Plant shall be supplemented by the rainwater collected and from mine pit water, particularly during lean season period.
- xii. The proponent shall not change/modify the natural drainage of the Kulwala Nadhi, Dindi Vagu and Mullaimari River flowing within/close to the plant site.
- xiii. The proponent shall adopt the unit on zero-discharge basis. No effluents shall be discharged outside the premises. The proponent shall adopt water conservation measures including reuse and recycle of water at every stage/process in the Plant (cement/power) operations.
- xiv. The proposed cement plant kiln will be provided with a flexible fuel feeding system to enable use of hazardous wastes such as oil sludge, cut tyres, etc.
- xv. The proponent shall examine and prepare a plan for utilisation of high calorific wastes such as chemical wastes, distillation residues, refuse derived fuels, etc as alternate fuels based on availability and composition. For this, the proponent shall identify suitable industries with such wastes and enter into an MOU for long-term utilisation of such wastes as per the E(P) A Rules, 1986 and with necessary approvals.
- xvi. The proponent shall implement a Plan for 100% utilisation the fly ash from the Power Plant in the Cement Plant.
- xvii. The proponent shall prepare a detailed CSR Plan for every next 5 years for the existing-cum-expansion project, which includes village-wise, sector-wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc) activities in consultation with the local communities and administration. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 years towards CSR activities for life of the project. A separate budget head shall be created and the annual capital and revenue expenditure on various activities of the Plan shall be submitted as part of the Compliance Report to RO, Bangalore. The

details of the CSR Plan shall also be uploaded on the company website and shall also be provided in the Annual Report of the company.

- xviii. Landless labour and small farmers also require to be compensated and details of these to be submitted as part of the Compliance report submitted to MOEF&CC RO, Bangalore.
- xix. The proponent shall implement a Wildlife Conservation Plan prepare din consultation with the Wildlife Dept. Government of Karnataka. A separate budget head shall be created and the annul capital and revenue expenditure of the Plan shall be submitted as part of the Compliance Report to RO, Bangalore. The details of the WL Conservation Plan shall also be uploaded on the company website and shall also be provided in the Annual Report of the company.

#### **GENERAL CONDITIONS:**

- i. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change.
- ii. 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>, PM<sub>25</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.
- iii. Industrial wastewater 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 form time to time. The treated wastewater shall be utilized for plantation purpose.
- iv. 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 should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).
- v. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- vi. 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.
- vii. 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 socioeconomic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.
- viii. 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, Forest and Climate Change 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.

- ix. 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.
- x. 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&CC at Bangalore. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM<sub>10</sub>, PM<sub>2.5</sub>, 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.
- xi. 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&CC, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bangalore/ CPCB / SPCB shall monitor the stipulated conditions.
- xii. 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 along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Office of the MOEF&CC at Bangalore by e-mail.
- xiii. 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, Forest and Climate Change 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.
- xiv. 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
15. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
16. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.




17. 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.

  
(Amardeep Raju)  
Scientist 'D'

Copy to:

1. The Secretary, Department of Environment & Ecology, Govt, of Karnataka, Room No. 708, Gate 2, Multi Storied Building, Dr. AmbedkarVeedhi, Bangalore - 560001 [secvenv-fee@karnataka.gov.in](mailto:secvenv-fee@karnataka.gov.in)
2. Principal Chief Conservator of Forests (PCCF) (Wildlife), Government of Karnataka, Banagalore.
3. The Chief Conservator of Forests, Regional Office (Southern Zone, Bangalore)Kendriya Sadan, 4th Floor, E&F Wing, II Block Koramangala, Bangalore-560034.
4. The Chairman, Central Pollution Control Board PariveshBhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi -110 032.
5. The Chairman, Karnataka State Pollution Control Board, #49, ParisaraBhavana, Church Street, Bangalore-01 (Karnataka).
6. The District Collector, District Gulbarga, Karnataka.
7. Guard File/Monitoring File/Record File.

  
(Amardeep Raju)  
Scientist 'D'