

F. No. J-11011/186/2008-IA.II(I)  
Government of India  
Ministry of Environment, Forest and Climate Change  
(Impact Assessment Division)

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Dated: 22<sup>nd</sup> February, 2019

To

**Shri Sundar Raj Srinivasan,**  
**Assistant Vice President - EHS,**  
M/s. Chettinad Cement Corporation Limited  
4<sup>th</sup> floor, Rani Seethai Hall Building,  
603, Anna Salai, Nungambakkam,  
Chennai, Tamil Nadu – 600006.

**Email:** [tech@chettinadcement.com](mailto:tech@chettinadcement.com); Tel: 044-42988697

**Subject:** Expansion of Clinker production in existing Cement plant (1.7 MTPA) at village Puliur, Taluk & District Karur, Tamil Nadu by M/s Chettinad Cement Corporation Ltd - **Environmental Clearance for installation of slag grinding unit of 1.0 MTPA capacity under para 7(ii) of EIA Notification 2006.**

Sir,

This refers to the application of M/s. Chettinad Cement Corporation Limited made vide proposal no. IA/TN/IND/84313/2018 dated 1/11/2018 seeking environmental clearance for installation of slag grinding unit of 1.0 MTPA capacity under para 7(ii) of EIA Notification, 2006. The proposed project activity is listed at Sl. No. 3(b) Cement Plants under Category "A" EIA Notification, 2006 and the proposal is appraised at Central level.

The proposal cited above was considered during the 2<sup>nd</sup> meeting of Reconstituted Expert Appraisal Committee [REAC] (Industry-I) held on 8-10<sup>th</sup> December, 2018. The EAC proceedings of the proposal cited above is given as below.

**Details submitted by the Project Proponent**

2.0 M/s Chettinad Cement Corporation Limited operating Cement plant (1.7 MTPA) at village Puliur, Taluk & District Karur, Tamil Nadu. The existing project was accorded environmental clearance vide Ir.no. MoEF&CC letter No. J-11011/186/2008-IA-II (I) dated 25.08.2008. Renewed Consent to Operate was obtained from Tamil Nadu pollution Control Board vide orders 170818162783 (Water Act) and 170828162783 (Air Act) dated 08.05.2017.

3.0 M/s. Chettinad Cement Corporation Private Limited proposes modification in the existing EC for Change in Product-Mix, Grinding of Granulated Blast Furnace Slag (GGBS)

in Puliur Cement Plant at 1.0 MTPA as Batch Operation within the EC quantity of 1.7 MTPA cement grinding. (Cement and Slag grinding will be 1.7 MTPA). The proposed capacity for different products for new site area as below:

Name of unit	No. of units	Capacity of each Unit	Production Capacity
Clinker Production-Existing	1	1.10 MTPA	1.10 MTPA
Clinker Production-Proposed	-	Nil	No change to existing Production
Cement Production-Existing	1	1.70 MTPA	1.70 MTPA
Cement & Slag Grinding-Proposed	1	1.70 MTPA	1.70 MTPA (Within the consented quantity slag grinding of 1.0 MTPA will be carried out as batch operation)
Thermal Power Plant-Existing	1	15 MW	15 MW

4.0 The proposed activity will be carried out within the existing plant premises at S.F.Nos. 1583, 1586 to 1593, 1607 and 1609 Village: Puliur, Taluk: Karur, District: Karur, State: Tamil Nadu.

5.0 The land area acquired for the plant is 31 Ha (No additional area for the proposed Change in Product-Mix). No forestland is involved. The entire land has been acquired for the project. Of the total area, 11.6 ha (37.4 %) land is under green belt.

6.0 No National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna.

7.0 No additional capital is required for the proposed activity. Existing project cost is Rs. 309.76 crores (No change in project cost). An amount of Rs. 18.49 Crores has been spent as EMP Capital Cost and Rs. 1.50 Crores/Annum is being spent as Operating Cost for EMP measures. There will be no increase in man power. The existing Plant provides direct employment to 338 persons and indirect employment to 300 persons.

8.0 The electricity load of 30 MW will be sourced from Captive Thermal Power Plant (1x15 MW) and TNEB (15 MW). Company has also installed DG Sets of 2 x 4.32 MW & 1 x 1.0 MW in Cement Plant and 1 x 1.25 MW in Captive Power Plant.

9.0 Proposed raw material and fuel requirement for project are: Limestone (1.59 MTPA), Iron Ore (0.046 MTPA), Bauxite (0.046 MTPA), Gypsum (0.085 MTPA), Fly Ash (0.212 MTPA), Slag (0.303 MTPA), Imported and Indian Coal (1.25 MTPA), Petcoke (0.01 MTPA) and Power Plant Coal (0.055 MTPA). The requirement would be fulfilled by own captive mines and from other industries. Fuel consumption will be mainly HSD (including Locomotives) @ 4,000 KL/day and LSHS for DG set @ 20 KL/day.



10.0 There will be no increase in water demand due to the proposal. Water Consumption for the existing project is 1200 cu.m/day which is met from the permitted bore wells near River Amaravathi. Trade effluent generation of 70 cu.m/day from Captive Power Plant is neutralized, treated and taken to the cement plant for equipment cooling (where it is evaporated fully). Combined Domestic sewage of 102 cu.m/day from Cement plant and Power plant is treated in STP of capacity 150 cu.m/day and the treated sewage of 90 cu.m/day is being used for Green belt. Domestic waste water of 200 cu.m/day from township is separately treated in 250 cu.m/day capacity STP and the treated sewage is utilized for greenbelt in the township & Lorry parking areas. 'Zero Effluent Discharge' is in practice at the complex.

11.0 Certified EC Conditions Compliance Report has been issued by the MoEF& CC, Regional Office, Chennai vide F.No. EP/12.1/750/TN/1543 dated 28.09.2018.

12.0 Impact prediction for the proposed enhancement in the production / change in product mix / modernization, etc.:

I. Air Emissions:

Parameter	Cement Mill-1	Cement Mill-2
Stack Height (from GL), m	44.0	50.0
Stack Dia, m	3.0	1.8
Flow rate m <sup>3</sup> /hr.	425,000	165,000
Temperature, °C	90	90
Inlet duct conc. kg/m <sup>3</sup>	500	600
Outlet duct conc. mg/Nm <sup>3</sup>	<30	<30
Size of bag dia / length (mm/m)	110/3.0	110/3.0
Fabric	Non-woven synthetic fabric	
Predicted PM10 GLC, ug/m <sup>3</sup>	0.4	
Predicted SO <sub>2</sub> GLC, ug/m <sup>3</sup>	1.9	
Predicted NOx GLC, ug/m <sup>3</sup>	0.6	
Distance from Source, km	1.0	

II. Water: There is no additional water demand for proposed Slag Grinding. Also, there is no increase in Effluent & Sewage Generation, their treatment and disposal i.e. there is no change to the existing Status.

III. Solid Wastes: No change in the Quantity of Solid Wastes Generation, Storage and its Disposal due to the Slag Grinding proposal.

IV. Green Belt: Total Plant Area is 31.0 Ha. So far, 24,584 Saplings have been planted over an area of 11.6 Ha (Coverage 37.42%).

V. Rain Water Harvesting: Rainwater harvesting pond has been provided in the Plant premises.

VI. Occupational Health: CCCPL Occupational Health Centre at the Plant has been established with a full-fledged dispensary equipped with facilities: X-ray unit, Computerized ECG, Laboratory, Computerized blood chemistry analyzer, Ultra Short Wave Therapy, Physiotherapy Unit, Audiometer & Spirometer, Ambulance, etc. CCCPL is also providing ergonomic support to the workers with periodical review.

13.0 Proposed mitigation plan for dealing of additional pollution load: EMP is formulated for mitigation of adverse impacts and is based on present environmental status and impact appraisal.

I. Air Environment

- All efforts shall be undertaken to maintain the PM emission levels from the main stacks within 30 mg/Nm<sup>3</sup>.
- The periodical evaluation for the efficiency performance of ESPs and Bag Filters shall be carried out.
- Fugitive emissions due to storage, transportation, etc. and the leakages and spillages shall be continuously monitored and controlled.
- Water conservation measures shall be undertaken for effective implementation. Cooling water is put into closed circuit to minimize the evaporation losses.
- Thermal insulation is provided wherever necessary to minimize heat radiation from the equipment, piping etc, to ensure protection of personnel.

II. Noise Levels

- All rotating items are well lubricated and provided with enclosures as far as possible to reduce noise termination.
- Extensive vibration monitoring systems are provided to check and reduce vibrations.
- For all fans, compressors etc. vibration isolators are provided to reduce noise.
- Provision of silencers are made wherever possible.
- Proper lubrication and housekeeping are maintained.
- The operator provided with necessary safety and protection equipment like ear plugs, ear muffs etc.

III. Water Environment



- The drawl of ground water shall be minimized and water control measures shall be undertaken.
- No trade effluent shall be discharged from the Plant.
- Cooling water is put into closed circuit to minimize the evaporation losses.
- The domestic sewages from the Cement Plant, Power Plant and Township shall be treated effectively in the Sewage Treatment Plants to meet the TNPCB Discharge Norms and the treated sewage shall be used for Green Belt.
- No percolation of treated water to the deep ground water table is done.
- Periodical monitoring for specific parameters shall be done regularly.
- CCCPL shall maintain the existing rain water harvesting structures effectively to supplement the water supply from the bore wells.

#### IV. Land Environment

- It should be ensured that there is no industrial solid waste from the Plants.
- The fly ash and bottom ash from the Thermal Power Plant will be consumed in the Cement Plant fully.
- Solid wastes from STP Plant shall be used as manure for Green Belt.
- Waste Oil shall be collected and sold to the TNPCB authorized Agency for further treatment & disposal.
- The municipal wastes shall be collected, transported, treated in a landfill (composting) within the Plant vicinity to make use of it as manure for Green Belt.

#### V. Green Belt

- Green Belt shall be maintained effectively. Local species and fruit bearing trees may also be developed to have a thick canopy cover.
- The treated sewage shall be used fully for the Green Belt development.

14.0 EMP Budget: Existing EMP Operating Budget of Rs.1.50 crores/annum of shall be maintained for effective implementation.

15.0 The proponent has mentioned that there is no court case or violation under EIA Notification to the project or related activity

#### **Observations and recommendations of the Committee: -**

16.0 After detailed deliberations, the committee recommended for environmental clearance for change in product-mix for grinding of granulated Blast Furnace Slag (GGBS) of 1.0 MTPA as Batch Operation within the EC quantity of 1.7 MTPA cement grinding. (i.e.

Cement and Slag grinding will be 1.7 MTPA) under para 7(ii) of the EIA Notification, 2006 subject to following additional conditions:


- i. The emissions from cement grinding units shall be restricted to  $\leq 30\text{mg/Nm}^3$ .
- ii. The cement grinding capacity shall be restricted to 1.7 MTPA inclusive of granulated slag.
- iii. Industrial vacuum cleaners shall be used to control the road dust within the plant and its vicinity.
- iv. All other terms and conditions mentioned in the earlier EC shall remain unchanged.

17.0 The Ministry of Environment, Forest and Climate Change has considered the application based on the recommendations of the Expert Appraisal Committee (Industry-I) and hereby decided to accord environmental clearance for environmental clearance for change in product-mix for grinding of granulated Blast Furnace Slag (GGBS) of 1.0 MTPA as Batch Operation within the EC quantity of 1.7 MTPA cement grinding. (i.e. Cement and Slag grinding will be 1.7 MTPA) under para 7(ii) of the EIA Notification, 2006 subject to following additional conditions:

- i. The emissions from cement grinding units shall be restricted to  $\leq 30\text{mg/Nm}^3$ .
- ii. The cement grinding capacity shall be restricted to 1.7 MTPA inclusive of granulated slag.
- iii. Industrial vacuum cleaners shall be used to control the road dust within the plant and its vicinity.
- iv. All other terms and conditions mentioned in the earlier EC letter no. J-11011/186/2008-IA.II(I) dated 25/08/2008 shall remain unchanged.

18.0 The PP shall obtain fresh environmental clearance in case of change in scope of the project if any.


This issues with the approval of Competent Authority.

  
(Sharath Kumar Pallerla)  
Scientist 'F' / Director

**Copy to: -**

1. **The Secretary**, Department of Environment, Government of Tamil Nadu, Chennai.
2. **The Additional Principal Chief Conservator of Forests(C)**, Ministry of Environment, Forest and Climate Change, Regional Office (SEZ), 1<sup>st</sup> and II<sup>nd</sup> Floor, Handloom Export Promotion Council, 34, Cathedral Garden Road, Nungambakkam, Chennai – 34.
3. **The Chairman**, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
4. **The Chairman**, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai- 600 032, Tamil Nadu.

5. **The Member Secretary**, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001.
6. **The District Collector**, Virudhunagar District, Tamil Nadu.
7. **Guard File / Record file / Monitoring file.**
8. **MOEF&CC Website.**

  
(Sharath Kumar Pallerla)  
Scientist 'F'/Director

