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**CONSENT ORDER FOR ESTABLISHMENT**

**Order No.221/PCB/CFE/RO-KNL/HO/2014 385**

**Dt. 16.04.2015**

Sub: PCB - CFE - M/s. Chettinad Cement Corporation Limited,  
Pedagarlpadu(V), Kesanupalli(V), Dachepalli (M), Guntur District -  
Consent for Establishment of the Board under Sec.25 of Water (P&C of P)  
Act, 1974 and Under Sec.21 of Air (P&C of P) Act, 1981 - Issued - Reg.

- Ref:
1. Proponent's CFE application received through SLSWCC on 12.09.2014.
  2. R.O's inspection report dt. 16.09.2014.
  3. T.O. Ir. dt.30.10.2014.
  4. EC Order dt.24.02.2015 issued by MoEF & CC, GoI, New Delhi.
  5. Industry's Ir. dt.04.03.2015.
  6. CFE Committee meeting held on 02.04.2015.

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1. In the reference 1<sup>st</sup> cited, an application was submitted to the Board seeking Consent for Establishment (CFE) to produce the following products with an investment of Rs. 1090.0 crores.

Sl. No	Products	Quantity
1.	Cement (Ordinary Portland Cement, Portland Pozzolana Cement & Portland Slag Cement)	3.5 million TPA
2.	Captive Power Plant through coal fired boiler	2 x 50MW
4.	Captive Power from Waste heat recovery boiler	8 MW

2. As per the application, the above activity and colony is to be located Sy. Nos. 184, 185, 186, 187, 130, 161, 162, 163, 164, 165, 203, 204, 205, 206, 207, 127, 129, 120, 179, 177, 173, 176, 175, 174, 171, 172, 170, 223, 169, 167, 166, 168, 222, 224, 221, 225, 107, 109, 106, 110, 118, 119, 183, 181/C, 181/D, 178, 104, 105, 108, 111, 112, 113/A, 113/B, 113/C, 116, 117, 121/A, 121/B, 122, 123, 223 of Pedagarlpadu(V) and 642 & 643 of Kesanupalli(V), Dachepalli (M), Guntur District in the total area about 325 acres
3. The above site was inspected by the Environmental Engineer and Asst. Environmental Engineer, Regional Office, Guntur, A.P Pollution Control Board on 16.09.2014 and found that the site is surrounded by

**North** : Dry agricultural lands.

**South** : Dry lands followed by Pedagarlpadu village at a distance of about 1km

**East** : Dry agricultural lands

**West** : Dry agricultural lands

4. The Board, after careful scrutiny of the application and verification report of Regional Officer and recommendations of the CFE Committee, hereby issues **CONSENT FOR ESTABLISHMENT** to your unit Under Section 25 of Water (Prevention & Control of Pollution) Act 1974 and Section 21 of Air (Prevention & Control of Pollution) Act, 1981 and the rules made there under. **This order is issued to activity as mentioned at para (1) only.**
5. This Consent Order now issued is subject to the conditions mentioned in Schedule 'A' and Schedule 'B'.

6. This order is issued from pollution control point of view only. Zoning and other regulations are not considered.


Encl: Schedule 'A'  
Schedule 'B'

Sd/-  
MEMBER SECRETARY

To

M/s. Chettinad Cement Corporation Limited,  
9<sup>th</sup> Floor, 603, Rani Seethai Hall Building,  
Anna Salai, Chennai – 600 006.  
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-// T.C.F.B.O // -



Jt. Chief Environmental Engineer (UH-1)



### SCHEDULE - A

1. Progress on implementation of the project shall be reported to the concerned Regional Office, A.P. Pollution Control Board once in six months.
2. Separate energy meters shall be provided for Effluent Treatment Plant (ETP) and Air pollution Control equipments to record energy consumed.
3. The proponent shall obtain Consents for Operation (CFO) from APPCB, as required Under Sec.25/26 of the Water (P&C of P) Act, 1974 and under sec. 21/22 of the Air (P&C of P) Act, 1981, before commencement of the activity.
4. Notwithstanding anything contained in this conditional letter or consent, the Board hereby reserves its right and power Under Sec.27(2) of Water (Prevention and Control of Pollution) Act, 1974 and Under Sec.21(4) of Air (Prevention and Control of Pollution) Act, 1981 to review any or all the conditions imposed herein and to make such alternation as deemed fit and stipulate any additional conditions by the Board.
5. The consent of the Board shall be exhibited in the factory premises at a conspicuous place for the information of the inspecting officers of different departments.
6. Compensation is to be paid for any environmental damage caused by it, as fixed by the Collector and District Magistrate as civil liability.
7. Floor washing shall be admitted into the effluent collection system only and shall not be allowed to find their way in storm drains or open areas. The industry shall maintain a good housekeeping. All pipe valves, sewers, drains shall be leak proof. Dyke walls shall be constructed around storage of chemicals.
8. Rain Water Harvesting (RWH) structure (s) shall be established on the plant site. The proponent shall ensure that effluent shall not enter the Rain Water harvesting structure.
9. The rules and regulations notified by Ministry of Law and Justice, GOI, regarding the Public Liability Insurance Act, 1991 shall be followed.
10. This order is valid for period of 5 years from the date of issue.

### SCHEDULE – B

#### Water:

1. The source of water is Krishna river & Bore wells and the maximum permitted water consumption is as following:

Sl. No.	Purpose	Quantity (KLD)
1.	<b>Cement Plant</b>	
	a) Process	300
	b) Cooling	270
	c) WHRB	55
	d) Domestic	120
2.	<b>Captive Power Plant</b>	
	a) Cooling	270
	b) DM/RO plant	640
	c) Domestic	30
3.	Central Work Shop	10
4.	Domestic (colony)	150
5.	Green Belt	90
	<b>Total</b>	<b>1890</b>



2. The maximum waste water generation shall not exceed the following:

Sl. No.	Source	Quantity (KLD)
1.	<b>Cement Plant</b>	
	a) Process	20
	b) WHRB Power Plant	5
2.	<b>Captive Power Plant</b>	
	a) Cooling Tower Blowdown	40
	b) Boiler Blowdown	40
	c) DM/RO Rejects	265
	<b>Sub-Total</b>	<b>345</b>
3.	<b>Domestic waste water</b>	
	d) Cement plant	<b>100</b>
	e) CPP	<b>25</b>
	f) Township	<b>125</b>
	<b>Sub total</b>	<b>250</b>
4.	Workshop	19
5.	Service water	20
	<b>Total</b>	<b>659</b>

**Treatment & Disposal:**

Effluent source	Treatment proposed	Mode of final disposal
Effluent from Cement plant, Captive Power Plant, Workshop & services	ETP – 450 KLD consists Neutralization tank, clariflocculator, pressure sand filter and softener	After treatment in ETP should be used for greenbelt development and for dust suppression.
Domestic waste water from cement plant & CPP	STP – 200 KLD	After treatment in STP, should be used for on land for gardening / plantation.
Domestic waste water from colony	STP – 200 KLD	

3. Under no circumstances the waste water shall be discharged out side the factory premises. The zero discharge shall be implemented.
4. All the units of the ETP & STP shall be impervious to prevent ground water pollution.
5. The effluents shall be treated to the on land for irrigation standards, stipulated under Environment (Protection) Rules, 1986, notified and published by Ministry of Environment and Forests, Government of India as specified in Schedule VI vide G.S.R.422 (E), dt.19.05.1993 and its amendments thereof, and additional standards / conditions stipulated by APPCB.
6. Separate magnetic flow meters with totalisers to necessary pipe-line shall be provided for assessing the quantity of water used for each of the purposes mentioned below.

a) Industrial cooling, boiler feed.

b) Domestic purposes.

c) Processing, whereby water gets polluted and pollutants are easily bio- degradable.

d) Processing, whereby water gets polluted and the pollutants are not easily bio-degradable.

**Air:**

7. The proponent shall comply with the following for controlling air pollution:

Sl. No	Details of Stack	Stacks 1 to 2	Stack 3	Stack 4	Stacks 5 & 6	Stack 7	Stacks 8 to 13	Stack 14	Stack 15
a)	Attached to	Boilers	Raw Mill/Kiln & WHRB	Clinker cooler	Cement mill	Coal mill	Packer section	DG Set	DG Set
b)	Capacity	2 x 200 TPH	1 x 44 TPH		2 nos.			2000 KVA	5000 KVA
c)	Fuel	coal	Waste heat						
d)	Stack height	2 x 100 m	140 m	45 m	70 m each	140 m	6 x 15 m each	12 m	30 m
e)	Control Equipment:	ESP	Bag house	ESP	Bag house	Bag filters		Silencer	Silencer
f)	Concentration of particulate matter	50 mg/Nm <sup>3</sup>	50 mg/Nm <sup>3</sup>	50 mg/Nm <sup>3</sup>	50 mg/Nm <sup>3</sup>	50 mg/Nm <sup>3</sup>	50 mg/Nm <sup>3</sup>		

8. The proponent shall install Bag filters at Raw Meal Silo , Fine Coal Bins Venting, Cooler Discharge, Clinker Silo Top, Fly Ash Bins, Cement Silos, Clinker Hopper Top, Silo Elevator Bottom, Fly Ash Silo Top, Packing House Sections, Cement Elevator Bottom, Clinker Hopper Bottom, Silo Bottom, Silo to Belt Discharge, Limestone Crusher and all process materials transfer towers.
9. The total dust from all the sections of industry shall not exceed 250 mg/Nm<sup>3</sup>.
10. **The industry shall not store coal or any other raw material in open area.**
11. The ESP and Bag filters shall be designed such that 25% of additional capacity is available as spare to meet the emergency requirements.
12. The industry shall provide concrete roads in the plant to avoid the fugitive dust emissions. Vacuum / pneumatic dust collection system shall be used for cleaning the internal roads.
13. The proponent shall provide online stack monitoring facility for all the major stacks and three Continuous Ambient Air Quality Monitoring stations (CAAQMS) in consultation with concerned Regional Officer. Data thus generated shall be networked with APPCB and CPCB for web display.
14. The proponent shall ensure compliance of the National Ambient Air quality standards notified by MOE&F, GOI vide notification No. GSR 826(E), dated. 16.11.2009, during construction and regular operational phase of the project.
15. A sampling port with removable dummy of not less than 15 cm diameter shall be provided in the stack at a distance of 8 times the diameter of the stack from the nearest constraint such as bends etc. A platform with suitable ladder shall be provided below 1 meter of sampling port to accommodate three persons with instruments. A 15 AMP 250 V plug point shall be provided on the platform.
16. The proponent shall provide interlocking system for air pollution control equipments provided with raw material feeding system so that the feeding of raw material would be stopped incase the air pollution control equipments fails.
17. The generator shall be installed in a closed area with a silencer and suitable noise absorption systems. The ambient noise level shall not exceed 75 dB (A) during day time and 70 dB (A) during night time.

**Solid Waste:**

18. The proponent shall comply with the following:

Sl.No	Solid / Hazardous Waste	Quantity	Method of Disposal
1.	Cement dust	200 kg/day	Recycle back to process
2.	Coal ash (when 100% Indian coal is used)		
	a. Fly ash	0.351 mTPA	Used in the cement plant.
	b. Bottom ash	0.039 mTPA	Used as bed material for boiler / for laying roads



3.	Coal ash (when 100% imported coal is used)		
	a. Fly ash	0.0576 m TPA	Used in the cement plant.
	b. Bottom ash	0.006 m TPA	Used as bed material for boiler / for laying roads
4.	Used / waste oil	44 kl/annum	Disposed to authorized agencies
5.	Hi-chrome balls	1.5 tons once in 3 years	Sent back to manufacturers / authorized dealer

19. All the bag filter dust, raw meal dust, coal dust, clinker dust and cement dust from pollution control devices shall be 100% recycled and reused in the process and used for cement manufacturing. Solid waste from sewage treatment plant (STP) shall be used as manure. No solid waste shall be disposed off from the cement plant. Spent oil, grease and grinding media shall be disposed to licensed vendors.
20. An effort shall be made to use of high calorific hazardous waste viz., spent carbon, spent solvent, Dolochar, spent earth from oil reclamation units, waste from welding shops, etc., in the cement kiln and necessary provision shall be made accordingly. Spent Acid shall be used for production of Gypsum. The company shall keep the record of the waste utilized and shall submit the details to the concerned Regional Office, APPCB along with flue gas monitoring reports as & when Haz. Waste is used along with regular fuel.
21. The following rules and regulations notified by the MoE&F, GoI shall be implemented.
  - a) Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989.
  - b) Hazardous waste (Management, Handling and Transboundary Movement) Rules, 2008.
  - c) Batteries (Management & Handling) Rules, 2010.
  - d) E-Waste (Management & Handling) Rules, 2011.

**Other Conditions:**

22. The quality of Agricultural land shall be protected in both sides of the plant approach road, by adopting dust suppression measures.
23. Exclusive greenbelt shall be developed on either side of the approach road.
24. Thick Green belt of adequate width and density with minimum area of 33% of total area shall be developed along the boundary of the unit. Green belt development shall be started along with the construction activity.
25. The over all noise levels in and around the plant shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures, etc., on all sources of noise generation.
26. The proponent shall ensure that there shall not be any change in the process technology and scope of working without prior approval from the Board.
27. The proponent shall comply with all the directions issued by the Board from time to time.
28. Concealing the factual data or submission of false information/ fabricated data and failure to comply with any of the conditions mentioned in this order attracts action under the provisions of relevant pollution control Acts.
29. The Board reserves its right to modify above conditions or stipulate new / additional conditions and to take action including revoke of this order in the interest of environment protection.
30. The Board reserves its right to modify above conditions or stipulate any additional conditions including revocation of this order in the interest of environment protection.

31. Any person aggrieved by an order made by the State Board under Section 25, Section 26, Section 27 of Water Act, 1974 or Section 21 of Air Act, 1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per Andhra Pradesh Water Rules, 1976 and Air Rules, 1982, to such authority (hereinafter referred to as the Appellate Authority) constituted under Section 28 of Water (Prevention and Control of Pollution) Act, 1974 and Section 31 of the Air (Prevention and Control of Pollution) Act, 1981.

Sd/-  
MEMBER SECRETARY

To  
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Jt. Chief Environmental Engineer (UH-1)

