



CONSENT ORDER FOR ESTABLISHMENT

Order No. 347 /APPCB/CFE/RO-GNT/HO/2014

Dt: 07.02.2018

Sub: PCB – CFE – **M/s. Chettinad Cement Corporation Limited, (Cement Plant), Sy. No 184, 185 etc., of Pedagarlapadu (V) Sy. No 642 & 643 of Kesanupalli (V), Dachepalli (M), Guntur District – Consent for Establishment of the Board for enhancement of Captive power from 8 MW to 20 MW through Waste Heat recovery Boiler (WHRB) 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. CFE order dt.16.04.2015
2. Proponent's CFE application received through AP OCMMS on 05.01.2018.
3. R.O's inspection report dt.11.01.2018.
4. CFE Committee meeting held on 07.02.2018.
5. Industry's Ir. dt. 06.02.2018 and mail dt. 07.02.2017.

1. In the reference 2nd cited, an application was submitted to the Board seeking Consent for Establishment (CFE) for **expansion** to produce the following products with an additional investment of Rs. 3.0 lakhs.

S. No	Name of the Products and By-products	Capacity as per CFE order dt. 16.04.2015	Proposed capacity	Total capacity after expansion
1	Cement	3.5 Million TPA	-	3.5 Million TPA
2	Captive Power Plant through coal fired boiler	2 x 50 MW	-	2 x 50 MW
3	Captive Power from Waste Heat Recovery Boiler (WHRB)	8 MW	12 MW	20 MW

2. As per the application, the above activity is to be located Sy. Nos. 184, 185 etc., of Pedagarlapadu(V) and 642 & 643 of Kesanupalli(V), Dachepalli (M), Guntur District in the total area about 131.52 Ha.
3. The above site was inspected by the Asst. Environmental Engineer, Regional Office, Guntur, A.P Pollution Control Board on 08.01.2018 and found that the site is surrounded by

North : Agricultural lands.

South : Agricultural lands followed by Pedagarlapdu village.

East : Agricultural lands

West : Agricultural lands

4. The Board, after careful scrutiny of the application, verification report of Regional Officer and recommendations of the CFE Committee, hereby issues **CONSENT FOR ESTABLISHMENT** for **enhancement of Captive power from 8 MW to 20 MW through Waste Heat recovery Boiler (WHRB)** 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 Annexure.
6. This order is issued from pollution control point of view only. Zoning and other regulations are not considered.
7. **This order is valid for period of 7 years from the date of issue.**

Encl: Annexure

MEMBER SECRETARY

To

**M/s. Chettinad Cement Corporation Limited,
(Cement Plant),
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Copy to: 1. The JCEE, Z.O., Vijayawada for information and necessary action.
2. The E.E., R.O, Guntur for information and necessary action.

ANNEXURE

1. The proponent shall obtain Consent 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 trail runs.
2. The applicant shall provide separate energy meters for Effluent Treatment Plant (ETP) and Air pollution Control equipments to record energy consumed. An alternative electric power source sufficient to operate all pollution control systems shall be provided.
3. The industry shall construct separate storm water drains and provide rain water harvesting structures. No effluents shall be discharged in to the storm water drains.

Water:

1. The source of water is Bore well and the maximum permitted water consumption after expansion of Power Plant is as following:

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

2. The maximum waste water generation after expansion of Power Plant shall not exceed the following:

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

Treatment & Disposal:

Effluent source	Treatment	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 after expansion of Power Plant:

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	Packing section	DG Set	DG Set
b)	Capacity	2 x 200 TPH	1 x 93 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

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 industry shall not store coal or any other raw material in open area.**
10. The ESP and Bag filters shall be designed such that 25% of additional capacity is available as spare to meet the emergency requirements.
11. 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.
12. 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.
13. 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.
14. 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.
15. 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.
16. 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:

17. The proponent shall comply with the following after expansion:

Sl.No	Solid / Hazardous Waste	Quantity	Method of Disposal
1.	Cement dust	200 kg/day	Shall be used recycled back to process
2.	Coal ash (when 100% Indian coal is used)		
	a. Fly ash	0.351 mTPA	Shall be used in the cement plant.
	b. Bottom ash	0.039 mTPA	Shall be 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	Shall be used in the cement plant.
	b. Bottom ash	0.006 m TPA	Shall be used as bed material for boiler / for laying roads
4.	Used / waste oil	44 kl/annum	Shall be used disposed to authorized agencies
5.	Hi-chrome balls	1.5 tons once in 3 years	Shall be used sent back to manufacturers / authorized dealer

18. 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.

19. The following rules and regulations notified by the MoE&F, GoI shall be implemented.
- a) Hazardous waste and other wastes (Management and Transboundary Movement) Rules, 2016.
 - b) Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989
 - c) Fly Ash Notification, 2016.
 - d) Batteries (Management & Handling) Rules, 2010.
 - e) E-Waste (Management) Rules, 2016.
 - f) Construction and Demolition waste Management Rules, 2016.
 - g) Solid Waste Management Rules, 2016.

Other Conditions:

20. 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.
21. 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.
22. The industry shall submit the information regarding usage of Ozone Depleting Substance once in six months to the Regional Office and Zonal Office of the Board.
23. 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.
24. 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 revoke the order, to review any or all the conditions imposed herein and to make such modifications as deemed fit and stipulate any additional conditions.
25. 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.

MEMBER SECRETARY

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