



Chettinad Cement / Karikkali / Cement Plant / Environmental Statement / 2018
16th July, 2018

Member Secretary

Tamil Nadu Pollution Control Board
76, Mount Salai, Guindy
Chennai – 600 032

Respected Sir,

Sub : Submission of Environmental Statement in “Form V” for the year 2017-18 under Environment (Protection) Rules, 1986 – Cement Plant of Chettinad Cement Corporation Private Limited, located at Karikkali & Dholipatti villages, Vedasandur tauk, Dindigul District, Tamilnadu.

We herewith submit the “Environmental Statement” in the prescribed format (Form V) for the year 2017-18 under Environment (Protection) Rules, 1986, pertaining to our Cement Plant located at Karikkali & Dholipatti Villages, Vedasandur Tauk, Dindigul District, Tamilnadu

Kindly acknowledge the receipt of the same.

Thanking you,

Yours faithfully,

for **CHETTINAD CEMENT CORPORATION PRIVATE LIMITED,**

M.U.SUBRAMANEYAN
JOINT PRESIDENT (WORKS)

Copy to :

1. Scientist 'E' & In-charge , CPCB, Bangalore
2. Director, Regional Office, MoEF & CC, Chennai
3. JCEE, TNPCB, Madurai
4. DEE, TNPCB, Dindigul

Chettinad Cement Corporation Private Limited.

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FORM - V

(Rule 14 of Environment (Protection) Rules, 1986)

Environmental Statement for the Financial Year ending the 31st March 2018

PART - A

- (i) Name and address of the owner / occupier of the industry operation or process. : **M.U.SUBRAMANEYAN,**
Joint President (Works)
Cement Plant
Chettinad Cement Corporation Private Limited
Rani Meyyammai Nagar, karikkali Post,
Vedasandur Taluk, Dindigul District
Tamilnadu, Pin code -624 703
- (ii) Industry category
Primary (STC Code) : Red Large
Secondary (SIC Code) : 1026- Cement
- (iii) Production Capacity : 4.5 million tons of Cement per annum
- (iv) Year of Establishment : 2001
- (v) Date of Last Environment statement submitted : 28th Sep, 2017

PART - B

Water and Raw Material Consumption

(i) Water Consumption (m³/day)

Process	:	39
Cooling	:	263
Domestic	:	90

Name of the Product	Process water consumption (m ³) per unit (metric ton) of Product (Cement) output	
	During the Previous Financial year 2016 - 2017	During the Current Financial year 2017 - 2018
Cement	0.0088	0.0084



(ii) Raw Material / Fuel Consumption:

Name of the Raw Materials		Name of the Products	Consumption of Raw Material / Fuel (metric ton) per unit (metric ton) of Product (cement) output	
			During the Previous Financial Year 2016-2017	During the Current Financial Year 2017-2018
(1)	Lime Stone	Cement (OPC, PPC, PSG)	1.094	1.004
(2)	Laterite		0.016	0.026
(3)	Iron Ore		0.016	0.014
(4)	Imported coal		0.050	0.032
	Others		0.025	0.037
	Total Fuel		0.076	0.069
(5)	Gypsum		0.069	0.071
(6)	Fly ash		0.261	0.261
(7)	Slag		0.414	0.443

Alternative Fuels & Raw materials (AFR)

Name the Hazardous Waste		Name of the Products	Consumption of AFR (metric ton) per unit (metric ton) of Product (cement) output	
			During the Previous Financial Year 2016-2017	During the Current Financial Year 2017-2018
(1)	Textile CETP Sludge (Category no.35.3)	Cement (OPC, PPC, PSG)	0.00033	0.00242

PART – C**Pollution Discharged to Environment / unit of output
(Parameter as specified in the consent issued)**

Pollutants	Quantity of Pollutants discharged (kg/day)	Concentrations of pollutants in discharges (Mass /Volume) (mg/litre expect pH)	Percentage of variation from prescribed standards with reasons
(a) Water			
pH	Not Applicable	7.41	With in the norm
TDS	39.9	541	Compared to Norm Less by 89 %
TSS	0.4	5.0	Compared to Norm Less by 94 %
BOD	0.6	8.2	Compared to Norm Less by 83 %
COD	2.8	37.8	Compared to Norm Less by 93 %



Pollutants	Quantity of Pollutants discharged (kg/day)	Concentrations of pollutants in discharges (Mass /Volume) (mg/Nm ³)	Percentage of variation from prescribed standards with reasons
(b) Air			
PM #	571	24.6	Compared to Norm Less by 18 %
SO ₂	-	32.7	Compared to Norm Less by 67 %
NO _x	-	189.4	Compared to Norm Less by 76 %

Compared to allowed Pollution Load of 0.125 kg of PM per ton of Clinker, actual load was 0.071 kg per of PM per ton of Clinker, which was less by 57 %

PART – D

HAZARDOUS WASTES

(As specified under [Hazardous & Other Wastes (Management, Handling and Transboundry Movement) Rules, 2016])

Sl. No	Hazardous Wastes	Total Quantity Generated in KL	
		During the Previous Financial Year 2016-2017	During the Current Financial Year 2017- 2018
(a)	From Process Used Oil (Category No.5.1)	14.65	19.50
(b)	From Pollution Control Facilities	NIL	NIL

PART – E

SOLID WASTES

Solid Wastes		Total Quantity (Kg)	
		During the Previous Financial Year 2016 – 2017	During the Current Financial Year 2017 – 2018
(a)	From Process - None	NIL	NIL
(b)	From Pollution Control Facilities - STP Sludge Generated	356	347
(c)	1. Quantity recycled or re-utilized within the unit (STP Sludge)	356	347
	2. Sold (STP Sludge)	NIL	NIL
	3. Disposed (STP Sludge)	NIL	NIL



PART – F

Please specify the characterizations (in terms of composition of quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes

Sl. No	Name of the Wastes	Quantity	Characteristics	Disposal Practice Adopted
A. Hazardous Waste				
(1)	Oil sludge (Category No.4.1)	No Oil sludge received		
(2)	Used / Spent Oil (Category No.5.1)	Opening stock (as on 01.04.2017) : 9.05 KL Generation (Apr'17 –Mar'18) : 19.50 KL Consumption (Apr'17-Mar'18) : 20.05 KL Closing stock (as on 31.03.2018) : 8.50 KL	GCV : 6000-8000kcal/Kg Cd+Cr+Ni <5ppm Density : 0.85-0.98g/cc	19.5 KL used for lubrication purpose in conveyor & other motors, within the Plant
(3)	Wastes containing oil (Category No.5.2)	Opening stock (as on 01.04.2017) : NIL Generation (Apr'17 –Mar'18) : 256.24tons Consumption (Apr'17-Mar'18) : 256.24tons Closing stock (as on 31.03.2018) : NIL	GCV : 3000-4000 kcal/Kg Ash : <30% Moisture : <10% Cd+cr+Ni : <1%	Co-Processing in Cement Kiln
(4)	Paint Sludge (Category No.21.1)	Opening stock (as on 01.04.2017): NIL Generation (Apr'17 –Mar'18) : 244.04 tons Consumption (Apr'17-Mar'18) : 244.04 tons Closing stock (as on 31.03.2018) : NIL	GCV : 3500-4000 kcal/Kg pH : 6-7 Ash : <20% Moisture : <30% Cd+cr+Ni+Zn : <0.5%	Co-Processing in Cement Kiln
(5)	Process Residues (Category no.28.1)	No Process residues received		
(6)	Spent Carbon (Category no.28.3)	No Spent Carbon received		



Sl. No	Name of the Wastes	Quantity	Characteristics	Disposal Practice Adopted
(7)	Spent Solvents (Category No.28.6)	No Spent Solvent received		
(8)	Textile CETP sludge (Category No.35.3)	Opening stock (as on 01.04.2017): NIL Receipt (Apr'17 –Mar'18) : 6744.495 tons Consumption (Apr'17-Mar'18) : 6744.495 tons Closing stock (as on 31.03.2018): NIL	CaO : >35% Sio2 : 10 -20% Chlorine : 20-30% Moisture : 20-30% Fe : 1-5% Mn : >2%	Co-Processing in Cement Kiln
(9)	Solid waste Mix (Category no.37.3)	Opening stock (as on 01.04.2017) : NIL Generation (Apr'17 –Mar'18) : 2321.58 tons Consumption (Apr'17-Mar'18) : 2271.08 tons Closing stock (as on 31.03.2018) : 50.5 tons	GCV : 3000-3500 kcal/kg Moisture : <10% Chloride : <1.5% Sulphur : <1.5% pH : 5.5 – 9.0 Ash : <25%	Co-Processing in Cement Kiln
B. Solid Wastes				
(10)	Solid Waste STP Sludge	Opening stock (as on 01.04.2017) : NIL Generation (Apr'17 –Mar'18) : 347 kg Consumption (Apr'17-Mar'18) : 347 kg Closing stock (as on 31.03.2018) : NIL	Dark granular, Soluble in water, pH : 6.8 -7.8. Nitrogen : 2 - 8%, Phosphorus : 0.3-1%, Potassium : 0.3-1%	Dried sludge used as manure for Green Belt Development

PART – G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production

Impact on Natural resources by implementation of Environmental conservation measures:

- ❖ Specific fuel consumption reduced from 0.076 ton to 0.069 ton per ton of Cement



PART – H

Additional measures / investment proposal for environmental protection including abatement of pollution, prevention of pollution

Investment Proposal for the year 2018-19

- ❖ Rs.89 Lakhs for Air Pollution Control Measures which will include replacement of Bag Filters, ESP Maintenance, Concrete Road near STP etc.,
- ❖ Rs 3.0 lakhs for Water Pollution Control Measures (upgradation of STP)
- ❖ Rs 5.0 lakhs for other Environmental Protection Measures like plantation of saplings, providing additional rainwater harvesting structures etc.,

PART – I

Any other particulars for improving the quality of environment

- ❖ Proper maintenance of Pollution Control Equipment including ETP and STP ensured for effective and efficient operation of the same. Maintenance Cost of Pollution Control Equipment during 2017-18 was Rs 68 Lakhs.
- ❖ Environmental Monitoring carried out to assess the effectiveness of Pollution Control Measures and initiate required action, if any required. Environmental Monitoring Cost during 2017-18 was Rs.34 Lakhs
- ❖ So far around 44629 trees planted covering 20.61. hectares
- ❖ Quality Management System (ISO 9001), Environmental Management System (ISO14001), Occupational Health & Safety Management System (IS 18001) and Energy Management System (ISO 50001) are in place to ensure that all operations are carried out in compliance with international standards.

Place : Karikkali

Date : 16th July, 2018



A handwritten signature in black ink, appearing to read 'M. U. Subramaneyam'.

(Signature of the Authorised Person)

Name : M.U.SUBRAMANEYAN

Designation : JOINT PRESIDENT (WORKS)