Chettinad cement

Chettinad Cement/Ariyalur/Environmental Statement/Cement Plant/2017/238

28th Sep , 2017

Member Secretary
Tamil Nadu Pollution Control Board
76, Anna Salai, Guindy
Chennai – 600 032

Respected Sir,

Sub : Submission of Environmental Statement in "From V" for the year 2016-17 under Environment (Protection) Rules,1986 - Cement Plant of Chettinad Cement Corporation Private Limited located at Keelapaluvur Village, Ariyalur Taluk & District, Tamilnadu

We submit herewith the **"Environmental Statement"** in the prescribed format **(Form V)** for the year 2016-17 under Environment (Protection) Rules, 1986, pertaining to our Cement Plant located at Keelapaluvur Village, Ariyalur Taluk & District, Tamilnadu.

Kindly acknowledge the receipt of the same.

Yours faithfully,
for **Chettinad Cement Corporation Private Limited**

M.Sundaramoorthy
Joint President (Works)

Copy to :

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

Chettinad Cement Corporation Private Limited
(formerly Chettinad Cement Corporation Limited)
Ariyalur Trichy Road, Keelapalur Post,
Ariyalur Dist - 621707, Tamilnadu, India.
T + 91 4329 250009
F + 91 4329 250011, 250013

CIN : U93090TN1962PTC004947
Regd.Office : Rani Seethai Hall Building,
603, Anna Salai, Chennai - 600 006.
T + 91 44 2829 2727, 42951800 (100 lines)
F + 91 44 2829 1558

E : ariyalur@chettinadcement.com
www.chettinad.com

FORM - V

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

Environmental Statement for the Financial Year ending the 31st March 2016

PART – A

(i)	Name and address of the owner / occupier of the industry operation or process.	:	**M.Sundaramoorthy,** **Joint President (Works)** Chettinad Cement Corporation Private Limited Cement Plant Keelapaluvur Village Ariyalur Taluk & District Tamilnadu Pincode : 621 707
(ii)	Industry category Primary (STC Code) Secondary (SIC Code)	 : :	 Red Large 1007- Cement
(iii)	Production Capacity	:	5.5 million tons of Cement per annum
(iv)	Year of Establishment	:	2009
(v)	Date of Last Environment Statement submitted	:	27th Sep , 2016

PART – B

Water and Raw Material Consumption

(i) Water Consumption (m^3/day)

Process	:	185.17
Cooling	:	42.30
Domestic	:	297.73

Name of the Product	Process Water Consumption (m^3) per unit (metric ton) of Product Output	
	During the Previous Financial Year (2015-16)	During the Current Financial Year (2016-17)
Cement	0.044	0.043

(ii) Raw Material /Fuel Consumption

Name of the Raw Material/Fuel		Name of the Product	Consumption of Raw Material /Fuel (metric ton) per unit (metric ton) of Output	
			During the Previous Financial Year (2015-16)	During the Current Financial Year (2016- 17)
1.	Limestone	Cement	1.268	1.288
2.	Clay		0.012	0.003
3.	Feldspar		0.0003	0.010
4.	Bauxite		Nil	0.014
5.	Imported Coal		0.090	0.065
	Others		0.009	0.0031
	Total Fuel		0.099	0.096
6.	Gypsum		0.063	0.065
7.	Fly Ash		0.285	0.283
8.	Slag		0.395	0.399

Alternate Fuels & Raw Materials (AFR)

Hazardous Waste		Name of the Product	Consumption of AFR (metric ton) per unit (metric ton) of Output	
			During the Previous Financial Year (2015-16)	During the Current Financial Year (2016- 17)
1	Chemical Sludge from Waste Water Treatment (Category No : 35.3)	Cement	Nil	0.00015
2	Concentration or Evaporation Residue (Category No : 37.3)		Nil	0.00012

PART – C

Pollution Discharged to Environment / Unit of output
(Parameter as specified in the Consent issued)

Pollutant	Quantity of Pollutant Discharged (mass/day) (kg/day)	Concentration of Pollutant in Discharges (Mass/volume) (mg/litre except pH)	Percentage of Variation from prescribed Standard with reasons
(a) Water			
pH	Not Applicable	7.55	Less than Standard
TSS	1.12	19.1	Compared to Standard less by 88 %
TDS	51.7	871.5	Compared to Standard less by 91 %
BOD	0.69	11.7	Compared to Standard less by 88 %
COD	3.29	54.8	Compared to Standard less by 95 %
Pollutant	**Quantity of Pollutant Discharged (mass/day) (kg/day)**	**Concentration of Pollutant in Discharges (Mass/volume) (mg/Nm^3)**	**Percentage of Variation from prescribed Standard with reasons**
(b) Air			
PM #	649.1	24.1	Compared to Standard less by 20 %
SO_2	-	16.5	Compared to Standard less by 84%
NOx	-	157.5	Compared to Standard less by 80%

Compared to allowed Pollution Load of 0.125 kg of PM per ton of Clinker , actual load was 0.082 kg per of PM per ton of Clinker, which was less by 35 %

PART – D

Hazardous Wastes

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

Hazardous Waste		Total Quantity Generated in metric ton	
		During the Previous Financial Year (2015-16)	During the Current Financial Year (2016- 17)
(a)	From Process Used Oil (Category No 5.1)	3.8	12.3
(b)	From Pollution Control Facilities	NIL	Nil

PART – E

Solid Wastes

Solid Waste		Total Quantity in kg	
		During the Previous Financial Year (2015-16)	During the Current Financial Year (2016- 17)
(a)	From Process	NIL	NIL
(b)	From Pollution Control Facilities- STP Sludge Generated	1100	1050
(c)	1. Quantity recycled or re-utilized within the unit (STP Sludge)	1100	1050
	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

Name of the Waste		Quantity	Characteristics	Disposal Practice Adopted
A. Hazardous Waste				
(1)	Used / Spent Oil (Category No.5.1)	Opening Stock (as on01.04.2016) : 1.1 tons Generation (Apr'16-Mar'17) : 12.3 tons Disposal/ Consumption (Apr'16-Mar'17) : 10.6 tons Closing Stock (as on 31.03.2017) : 2.8 tons	Liquid containing 6000-8000 kcal/Kg of GCV and Less than 5ppm of Cd+Cr+Ni	10.6 tons used for lubrication purpose in conveyor rollers & other motors, within the Plant
(2)	Chemical Sludge from Waste Water Treatment Plant (Category No.35.3)	Opening Stock (as on 01.04.2016) : NIL Receipt (Apr'16-Mar'17) : 205.5 tons Consumption (Apr'16-Mar'17) : 205.5 tons Closing Stock (as on 31.03.2017) : NIL	CaO : 30-35 % SiO_2 : 15 -17 % Fe_2O_3 : 5 – 6 % Al_2O_3 : 2 – 4 %	Co-processed in our Cement Kiln

Name of the Waste		Quantity	Characteristics	Disposal Practice Adopted
(3)	Concentration or Evaporation Residue (Category No.37.3)	Opening Stock (as on 01.04.2016) : NIL Generation (Apr'16-Mar'17) :16.4 tons Consumption (Apr'16-Mar'17) :16.4 tons Closing Stock (as on 31.03.2017) : NIL	1.Moisture :15-20 % 2.GCV : 3000 -3200 kcal per kg 3.Ash : 35-40% 4.Sulphur : 0.4-0.6 %	Co-processed in our Cement Kiln
B. Solid Waste				
(4)	STP Sludge	Opening Stock (as on 01.04.2016) : NIL Generation (Apr'16-Mar'17) : 1050 kg Consumption (Apr'16-Mar'17) : 1050 kg Closing Stock (as on 31.03.2017) : NIL	Organic matter containing Nitrogen 4%, Phosphorous 0.6%, Potassium 0.5%	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

- Reduction in specific consumption of water from 0.134 to 0.133 m^3 per ton of Cement

PART – H

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

Investment Proposal for Environmental Protection for the year 2017-18

- Rs 90.7 lakhs for Air Pollution Control Measures (replacement of bag filters)
- Rs 11.53 lakhs for other 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 2016-17 was Rs 106.7 lakhs.
- Environmental Monitoring carried out to assess the effectiveness of Pollution Control Measures and initiate required action, if any required . Environmental Monitoring Cost during 2016-17 was Rs 50.45 lakhs
- So far around 57,000 trees planted covering 28.5 hectares

Place : Ariyalur
Date : 28th Sep 2017

(Signature of the Authorized Person)
Name : **M.Sundaramoorthy**
Designation : **Joint President (Works)**