

Chettinad Cement/Ariyalur/Environmental Statement/Cement Plant/2020 -21 / 244

23rd Sep . 2021

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

Respected Sir,


Sub : Submission of Environmental Statement in "Form V" under Environment (Protection) Rules,1986 for the year 2020-21 - Chettinad Cement Corporation Private Limited, Cement Plant, Keelapalur, Ariyalur District, Tamilnadu

We herewith submit the "Environmental Statement" pertaining to our Cement Plant in the prescribed format (Form V) under Environment (Protection) Rules, 1986 for the year 2020-21.

Kindly acknowledge the receipt of the same.

Thanking you,

Yours faithfully,
for Chettinad Cement Corporation Private Limited


A. Amalraj
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

FORM - V

(See rule 14 of Environment (Protection) Rules, 1986)

Environmental Statement for the Financial Year ending the 31st March 2021**PART - A**

- (i) Name and address of the owner / occupier of the industry operation or process. : **A. Amalraj,
Joint President [Works]
Chettinad Cement Corporation Private Limited
Cement Plant
Keelapalur
Ariyalur District
Tamilnadu
Pincode : 621 707**
- (ii) Industry category
Primary (STC Code) : Red Large
Secondary (SIC Code) : 1007- Cement
- (iii) Production Capacity : 5.5 million tons per annum (mtpa)
- (iv) Year of Establishment : 2009
- (v) Date of Last Environment Statement submitted : 15.09.2020

PART - B**Water and Raw Material Consumption****(i) Water Consumption (m³/day)**

Process	:	87.0
Cooling	:	43.0
Domestic	:	281.0

Name of the Product	Process water consumption (m ³) per unit (metric ton) of Product Output	
	During the Previous Financial Year (2019-2020)	During the Current Financial Year (2020-2021)
Cement	0.029	0.016

(ii) Raw Material Consumption

Name of the Raw Material	Name of the Product	Consumption of Raw Material (metric ton) per unit (metric ton) of Output	
		During the Previous Financial Year (2019-2020)	During the Current Financial Year (2020- 2021)
(1) Lime stone	Clinker	1.440	1.465
(2) Clay		Nil	Nil
(3) Feldspar		Nil	Nil
(4) Bauxite/Laterite		0.054	0.034
(5) Fuel –Total		0.085	0.101
Split up: Imported coal		0.081	0.101
Indian Coal		0.0	0.0
Others	0.026	0.014	
(5) Gypsum	Cement	0.067	0.042
(6) Fly Ash		0.309	0.427
(7) Slag		0.288	0.221

Alternate Fuels & Raw Materials :

Hazardous Waste	Total Quantity Co processed in MT	
	During the Previous Financial Year (2019-2020)	During the Current Financial Year (2020- 2021)
(a) Chemical sludge from Waste Water Treatment (category : 35.3)	806.991	961.759
(b) Concentration or Evaporation Residue (category : 37.3)	3428.580	422.422
Other Wastes		
(a) MSW, Colony RDF & Plastic Wastes from ULBs	0.0	250.624
(b) Non Hazardous wastes [Emery sheet wastes & Paper waste]	0.0	108.508

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)	Concentrations of Pollutants in Discharges (Mass/volume) (mg/litre except pH)	Percentage of variation from prescribed standards with reasons
(a) Water			
pH	Not Applicable	Not Applicable	Less than Norm
TSS	2.9	18.1	Compared to Norm Less by 39.6 %
BOD	0.72	5.4	Compared to Norm Less by 72.8 %
COD	5.26	42.5	Compared to Norm Less by 83.0 %

Pollutant	Quantity of Pollutant Discharged (mass/day) (kg/day)	Concentrations of Pollutants in Ambient Air (Mass/volume) mg/Nm³	Percentage of variation from prescribed standards with reasons
(b) Air			
PM	253	21.36	Compared to Norm Less by 28.8 %
SO₂	126	10.66	Compared to Norm less by 89.3%
NOx	5991	505.46	Compared to Norm Less by 36.8 %

PART – D

Hazardous Wastes

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

Hazardous Waste		Total Quantity Generated in MT	
		During the Previous Financial Year (2019-2020)	During the Current Financial Year (2020- 2021)
(a)	From Process Used Oil (Category No 5.1)	6.37	1.4
(b)	From Pollution Control Facilities	NIL	Nil

PART – E

Solid Wastes

Solid Waste		Total Quantity (Kg)	
		During the Previous Financial Year (2019-2020)	During the Current Financial Year (2020- 2021)
(a)	From Process:	NIL	NIL
(b)	From Pollution Control Facilities- Generated STP Sludge	1270	1300
(c)	1. Quantity recycled or re-utilized within the unit STP Sludge	1270	1300
	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 Wastes		Quantity	Characteristics	Disposal Practice Adopted
(1)	Hazardous Waste Used / Spent Oil (Category No.5.1)	Opening Stock (01.04.2020) : Nil tons Generation (Apr'20-Mar'21): 1.4 tons Disposal/ Consumption (Apr'20-Mar'21): 1.4 tons Closing Stock (31.03.2021) : Nil tons	Waster Oil containing 6000-8000 kcal/Kg of GCV and Less than 5ppm of Cd+Cr+Ni	1.4 tons sent to the authorised recycler
(2)	Chemical Sludge from Waste Water Treatment Plant (Category No.35.3)	Opening Stock (01.04.2020) : Nil tons Receipt (Apr'20-Mar'21): 993.946 tons Disposal/ Consumption (Apr'20-Mar'21): 961.759 tons Closing Stock (31.03.2021) : 32.187 tons	Cao content 25%-35%	Co processed in our Cement Kiln
(3)	Concentration or Evaporation residue (Category No.37.3)	Opening Stock (01.04.2020) : Nil tons Receipt (Apr'20-Mar'21): 449.572 tons Disposal/ Consumption (Apr'20-Mar'21): 422.422 tons Closing Stock (31.03.2021) : 27.150 tons	Calorific value 2500 k/cal - 3200 k/calories	Co processed in our Cement Kiln
(4)	Solid Waste STP Sludge	Opening Stock (01.04.2020) : Nil tons Generation (Apr'20-Mar'21): 1300 tons Disposal/ Consumption (Apr'20-Mar'21): 1300 tons Closing Stock (31.03.2021) : Nil tons	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

- Around 1743.313 ton of Alternative Fuel & Raw materials (Hazardous and Other wastes) consumed for the year 2020-21.
- ETP sludge Consumption increased from 806.991 Ton to 961.759 Ton
- Around 5263 Ton of Captive power plant Fly ash reused in the cement plant.
- Green Belt Development area covered 33.02% (28.8 hectares @ 59520 trees) in the total plant area.
- Specific water conservation reduced from 0.029 to 0.016 m³/ton of product.

PART – H

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

Investment Proposal for Environmental Protection for the year 2021-22

- Rs. 80 Lakhs for Air Pollution Control Measures which will include replacement of Bag Filters, ESP Maintenance, Concrete Road repairs and maintenance etc.,
- Rs 18.0 Lakhs for Water Pollution Control Measures which include replacement of equipments, spares and maintenance etc.
- Rs 8.0 Lakhs for other Environmental Protection Measures like plantation of saplings, providing additional rainwater harvesting structures etc.,
- Environmental Monitoring expenses Rs. 12.0 lakhs

PART – I

Any other particulars for improving the quality of environment

- ❖ Routine & Proper maintenance of Pollution Control Equipments including ETP and STP ensured for effective and efficient operation of the same. Maintenance Cost of Pollution Control Equipment during 2020-21 was Rs 55.5 Lakhs.
- ❖ Environmental Monitoring carried out to assess the effectiveness of Pollution Control Measures and initiate required action, if any required. Environmental Monitoring Cost during 2020-21 was Rs. 9.6 Lakhs
- ❖ Quality Management System (ISO 9001), Environmental Management System (ISO 14001), Occupational Health & Safety Management System (ISO 45001) and Energy Management System (ISO 50001) are in place to ensure that all operations are carried out in compliance with international standards.
- ❖ We celebrated World Environment day on 05.06.2020 theme "Air Pollution" by planting saplings and created awareness among our employees.
- ❖ We created awareness among school children, villages and employees about the "Ban Plastic" awareness program and displayed awareness board in the plant area.
- ❖ We celebrated World Ozone day on 16.09.2020 theme "Ozone for life, 35 years of ozone layer protection" by taking pledge and created awareness among our employees.

Place : Keelapalur
Date : 23.09.2021

[Signature of the Authorized Person]

Name : A. Amalraj

Designation : Joint President [Works]