Through courier

CCCPL/KW/Env.Statement/Cement Plant & CPP/2020-21/ 21st Sep, 2021

To
The Member Secretary,
Karnataka State Pollution Control Board,
49, 4th& 5th floor,
Parisara Bhavana, Church Street,
Bangalore – 560 001.

Dear Sir,

Sub: Submission of **Environmental Statement Report** in **"Form V"** for the year 2019-20 of **Integrated Cement & Captive Power Plant of Chettinad Cement Corporation Private Limited located** at Kallur & Sangem K Villages, Chincholi Taluk, Kalaburagi District, Karnataka, under Environment (Protection) Rules, 1986.

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As mentioned in the above cited subject matter, we are here by submitting the **"Environmental Statement Report" FY 2020-21** in the prescribed format **(Form V)** under Environment (Protection) Rules, 1986 pertaining to our **Integrated Cement & Captive Power Plant** located at Kallur & Sangem K Villages, Chincholi Taluk, Kalaburagi District, Karnataka.

Kindly acknowledge the receipt of the same.

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

Devesh Kumar Mishra
Unit Head

Chettinad Cement Corporation Private Limited
Kallur Works, Sangam K Village
Garagapalli Post, Chandapur (SO)
Chincholi (TK), Kalaburagi (Gulbarga) (DT)
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Copy to :

1. Environmental officer,
   Karnataka State Pollution Control Board,
   Plot No 12/2, Sy.No 19/P, Mansafdar Layout,
   MG Road, Santraswadi,
   Kalburgi- 585 101

2. Additional Principal Chief Conservator of Forests (C),
   Ministry of Environment & Forest, Govt. of India
   Regional office (Southern zone)
   Kendriya Sedan, IVth Floor, E & F Wings,
   17th Main Road, II Block, Koramangala,
   Bangalore-560 034.

CONTENTS

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.	:	L.MUTHUKRISHNAN, Chettinad Cement Corporation Private Ltd Head office, Sigapi Achi Building, 4th Floor, No.18/3, Rukmani Lakshmipathy Road, Egmore, Chennai 600008 Tamilnadu. India
(ii)	Industry category Primary (STC Code) Secondary (SIC Code)	: :	 Red Large 1007- Cement
(iii)	Production Capacity	:	Clinker -: 2.0 Million Tons Per Annum (MTPA) Cement -: 2.5 Million Tons Per Annum (MTPA) Power -: 30 MW WHRB -: 7 MW Solar Power -: 3 MW
(iv)	Year of Establishment	:	2012
(v)	Date of Last Environmental Statement submitted	:	12.09.2020

PART – C

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

a. Cement Plant:

Water			
Pollutant	**Concentrations of Pollutants in Discharges (Mass/volume) mg/litre**	**Standards in mg/litre**	**Percentage of variation from prescribed standards with reasons**
pH Value	7.45	6.5 to 9.0	Within prescribed limits
BOD	6.52	10	Within prescribed limits
COD	31.44	50	Within prescribed limits
TSS	11	20	Within prescribed limits
Ammonical Nitrogen as NH4	<0.1	5	Within prescribed limits
Total Nitrogen	1.65	10	Within prescribed limits
Fecal coliform	69	<100	Within prescribed limits

Stack gas Quality			
Pollutant	**Avg Concentrations of Pollutants in Discharges (Mass/volume) mg/Nm³**	**Standards in mg/Nm³**	**Percentage of variation from prescribed standards with reasons**
Kiln stack			
PM	19	30	Within prescribed limits
SO_2	13	100	Within prescribed limits
NO_x	468	800	Within prescribed limits
Coal Mill stack			
PM	13	30	Within prescribed limits
Cement Mill stack			
PM	15	30	Within prescribed limits
Cooler stack			
PM	16	30	Within prescribed limits

PART – B

Water and Raw Material Consumption

(i) Water Consumption m³/day:

Description	During the Previous Financial Year (2019-2020)	During the Current Financial Year (2020-2021)
a) Process & Cooling	533.72	554.70
b) Domestic	93.96	170.73

Name of the Product	Process water consumption (m³) per unit (MT/MW) of Product Output	
	During the Previous Financial Year (2019-2020)	During the Current Financial Year (2020-2021)
Cement (**m³/MT**)	0.0394	0.0528
Power (**m³ / MWH**)	0.5343	0.5895

(ii) Raw Material Consumption

a. Cement Plant:

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	Cement	1.1887	1.1938
2	Laterite		0.0684	0.0689
3	Iron Ore		0.0102	0.0105
4	Red Mud		0.0058	0.0053
5	Fuel - Coal		0.0721	0.0672
	Petcoke		0.0237	0.0280
6	AFR		0.0044	0.0005
7	Gypsum		0.0276	0.0241
8	Fly Ash		0.0944	0.0867

b. Power Plant

Name of the Raw Material		Name of the Product	Consumption of Raw Material (metric ton) per MW of Output	
			During the Previous Financial Year (2019-2020)	During the Current Financial Year (2020-2021)
1	Fuel - Coal	Power	0.58	0.59

Ambient Air Quality			
Pollutant	**Concentrations of Pollutants in Discharges (Mass/volume) µg/m³**	**Annual Avg in µg/m³**	**Percentage of variation from prescribed standards with reasons**
Core zone- Plant			
PM_{10}	50.46	60	Within Prescribed limits
$PM_{2.5}$	21.50	40	Within Prescribed limits
SO_2	9.67	50	Within Prescribed limits
NO_x	13.75	40	Within Prescribed limits
Buffer Zone			
Miryan			
PM_{10}	50.73	60	Within Prescribed limits
$PM_{2.5}$	20.65	40	Within Prescribed limits
SO_2	10.32	50	Within Prescribed limits
NO_x	14.47	40	Within Prescribed limits
Polkampalli			
PM_{10}	50.18	60	Within Prescribed limits
$PM_{2.5}$	21.15	40	Within Prescribed limits
SO_2	10.24	50	Within Prescribed limits
NO_x	13.94	40	Within Prescribed limits
Bhaktampalli			
PM_{10}	50.05	60	Within Prescribed limits
$PM_{2.5}$	21.06	40	Within Prescribed limits
SO_2	10.46	50	Within Prescribed limits
NO_x	13.98	40	Within Prescribed limits
Somalingdahalli			
PM_{10}	49.37	60	Within Prescribed limits
$PM_{2.5}$	21.97	40	Within Prescribed limits
SO2	10.11	50	Within Prescribed limits
NOx	13.80	40	Within Prescribed limits
Kallur			
PM_{10}	49.26	60	Within Prescribed limits
$PM_{2.5}$	22.60	40	Within Prescribed limits
SO2	9.90	50	Within Prescribed limits
NOx	13.19	40	Within Prescribed limits

B.Power Plant:

Pollutants	Concentrations of Pollutants in Discharges (Mass/volume) mg/litre Except pH	Standards in mg/litre	Percentage of variation from prescribed standards with reasons
(a) Water			
pH	8.17	5.5 to 9.0	Within prescribed limits
TDS	1064	2100	Within prescribed limits
TSS	21	100	Within prescribed limits
Chlorides	349	1000	Within prescribed limits
Sulphates	190	1000	Within prescribed limits
Dissolved Phosphates (as P)	0.63	5.0	Within prescribed limits
(b) Air			
Pollutant	**Concentrations of Pollutants in Discharges (Mass/volume) mg/Nm³**	**Standards**	**Percentage of variation from prescribed standards with reasons**
PM	30	50	Within prescribed limits
SO2	468	600	Within prescribed limits
NOx	200	300	Within prescribed limits

PART – D

Hazardous Wastes

(Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016)

Hazardous Waste		Total Quantity Generated in KL	
		During the Previous Financial Year (2019-2020)	**During the Current Financial Year (2020-2021)**
(a)	From Process Used Oil (Category No 5.1)	9.0	NIL
(b)	From Pollution Control Facilities	NIL	NIL

PART – E

Solid Wastes

Solid Waste		Total Quantity in metric tons	
		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 a. STP Sludge b. Fly Ash c. Bottom Ash	 NIL 17428.97 860.11	 NIL 15180 1320
(c)	1. Quantity recycled or re-utilized within the unit a. STP Sludge b. Fly Ash c. Bottom Ash	 NIL 17428.97 860.11	 NIL 15180 1320
	2. Sold a. STP Sludge b. Fly Ash c. Bottom Ash	 NIL NIL NIL	 NIL NIL NIL
	3. Disposed a. STP Sludge b. Fly Ash c. Bottom Ash	 NIL NIL NIL	 NIL 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
(1)	**Hazardous Waste** Used / Spent Oil (Category No.5.1)	Opening Stock (01.04.2018) : NIL Generation (Apr'20 - Mar'21) : NIL Consumption (Apr'20 - Mar'21) : NIL Closing Stock (31.03.2020) : NIL	Waste Oil containing 5000-7000 kcal/Kg of GCV and Less than 5 ppm of Cd+Cr+Ni	Used for lubrication of conveyors, chain blocks and other motors within the Plant.

Name of the Waste		Quantity	Characteristics	Disposal Practice Adopted
(2)	**Solid Waste** Bottom Ash	Opening stock (01.04.2020) : 0.00 MT Generation (Apr'20 – Mar'21) : 1320 MT Consumption (Apr'20 – Mar'21) : 1320 MT Closing stock (as on 31.03.2020) : 0.00 MT	Solid containing Sio_2 : 70-80%, Fe_2O_3 : 2-5 % LOI : 4 -6 % Al_2O_3 : 18-30%	100% Utilized within the premises (replacement of Boiler bed materials, used as sand for masonry works)
(3)	**Solid Waste** Fly Ash	Opening stock (as on 01.04.2020) : 22.86 MT Generation (Apr'20 – Mar'21) : 15180 MT Consumption (Apr'20 – Mar'21) : 15110 MT Closing stock (as on 31.03.2020): 91.96 MT	Solid containing SiO_2 : 25-35%, Fe_2O_3: 2-3% LOI : 10-15% K_2O+Na_2O : <1%	100 % of Fly Ash Utilized in Cement production.

PART – G

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

- Air cooled condensers have been installed to reduce water consumption at Captive Power Plant.
- Stack Emissions were controlled by installation of Pollution control equipment's of ESP's and Baghouses.
- Regular monitoring of ambient air quality, stack emissions and effluent quality have been taken up to the evaluate the efficiency of the pollution control systems and control measures of the overall emissions from stack and ambient air.
- Water recharging pit is installed at CPP area
- As our pollution control equipment's are working with higher efficiency, maximum amount of emissions are recycled thus conserving raw material and reducing dust emission.
- Flyash Generated from CPP and procurement from surrounding Power Plants are being used in the manufacturing of PPC, thus utilizing waste and conserving limestone.

PART – H

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

Investment Proposal for Environmental Production for the year 2021-22

1. New CC road is being paved to reduce fugitive emissions near cement mill Fly ash silo area incurred 51 Lakhs
2. Trench wall has been constructed to reduce fugitive emissions incurred 4 Lakhs

PART – I

Any other particulars for improving the quality of environment

a. Green Belt development program has been implemented in phased manner, 10000 Saplings were planned in the Year 2021-22.
b. Zero effluent discharge is implemented and wastewater generated is treated and reused in Cement Plant and development of Green Belt.
c. Approximately 7300 saplings were planted in Plant, Mines and colony covering an of area 4 ha during the year 2020-21
d. Integrated Management Systems have been Implemented - ISO 9001, ISO 14001 & OSHAS 45001.

Environmental Awareness:

World Environment Day was celebrated at Chettinad Cement Corporation Pvt Ltd, Kallur works on 5th June 2021 with a great Zeal, and this year's theme is ***"Eco-system Restoration***.

The program was inaugurated by Mr.Devesh Kumar Mishra–Unit Head addressed a speech at Mines area about the importance of Environment day to the employees and an awareness speech and importance of World Environment day was addressed by Dy.Manager-Env. Finally, employees of CCCPL actively participated in plantation program at Cement Plant and Mines area Approx. 300 No's of saplings were planted.

Glimpses of World Environment Day Celebrations – 2021

Place: Kallur

Date : 20.09.2021

Name : **Devesh Kumar Mishra**

Designation : **Unit Head**

M/s Chettinad Cement Corporation Pvt. Ltd.
Kallur Works (Sangam K)
Bakthampalli P.O., Chincholi Taluk,
Kalaburagi Dt., Karnataka - 585307