CCCPL/KW/Env.Statement/2023-24/01 Date: 17.09.2024

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

Sub: Submission of **Environmental Statement Report** in **"Form V"** for the year 2023-24 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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Dear Sir,

As mentioned in the above cited subject matter, we are here by submitting the **"Environmental Statement Report" FY 2023-24** 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**

K Saikumar 17/09
Unit Head

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

Chettinad Cement Corporation Private Limited
Kallur Works, Sangam K Village
Garagapalli Post, Chandapur (SO)
Chincholi (TK), Kalaburagi (Gulbarga) (DT)
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ENVIRONMENTAL STATEMENT REPORT

FY 2023-2024

PROJECT: INTEGRATED CEMENT PLANT 2.5 MTPA, CAPTIVE POWER PLANT-30 MW and WHR 7.0 MW

Lessee

M/s.Chettinad Cement Corporation Pvt Ltd.

Unit: Kallur works

Sangem K Village, Garagapalli Post
Chandapur (S.O), Chincholi Taluka,
Dist: Kalaburagi,
Karnataka-585305

CONTENTS

FORM - V

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

Environmental Statement for the Financial Year ending the 31st March 2024

PART – A

(i)	Name and address of the owner /occupier of the industry operation or process.	:	M.A.M.R. Muthiah Chettinad Cement Corporation Pvt Ltd, Kallur Limestone Mine, Kallur Village , Chincholi Taluk, Kalaburagi District, Karnataka. Pincode : 585 305
(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	:	20.09.2023

PART – B

Water and Raw Material Consumption

(i) Water Consumption m³/day:

Description	During the Previous Financial Year (2022-2023)	During the Current Financial Year (2023-2024)
a) Process & Cooling	327.871	347.96
b) Domestic	161.334	172.522

Name of the Product	Process water consumption (m³) per unit (MT/MW) of Product Output	
	During the Previous Financial Year (2022-2023)	During the Current Financial Year (2023-2024)
Cement (**m³/MT**)	0.0258	0.02448
Power (**m³ / MWH**)	0.250	0.3330
WHR (**m³ / MWH**)	0.312	0.2999

(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 (2022-2023)	During the Current Financial Year (2023-2024)
1	Lime stone	Cement	1.1059	1.0733
2	Laterite		0.0780	0.0692
3	Iron Ore		0.0092	0.0097
4	Red Mud		0.0025	0
5	Felldspar		0.0017	0.0014
6	Fuel – Coal		0.0569	0.0410
	Petcoke		0.0280	0.0383
7	AFR		0.0099	0.0138
8	Gypsum		0.0284	0.0504
9	Fly Ash		0.136	0.1472
10	HGFA from CPP		0.0053	0.0102

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 (2022-2023)	During the Current Financial Year (2023-2024)
1	**Fuel - Coal**	Power	0.70	0.84

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	7.31	6.5 to 9.0	Within prescribed limits
BOD	8.74	10	Within prescribed limits
COD	32	50	Within prescribed limits
TSS	12.15	20	Within prescribed limits
Ammonical Nitrogen as NH4	0.63	5	Within prescribed limits
Total Nitrogen	1.58	10	Within prescribed limits
Fecal coliform	24.38	<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	19.7	30	Within prescribed limits
SO_2	17.6	100	Within prescribed limits
NO_x	367.8	800	Within prescribed limits
Coal Mill stack			
PM	17.6	30	Within prescribed limits
Cement Mill stack			

PM	19.3	30	Within prescribed limits
Cooler stack			
PM	21.26	30	Within prescribed limits

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}	58.3	60	Within Prescribed limits
$PM_{2.5}$	22.73	40	Within Prescribed limits
SO_2	13.0	50	Within Prescribed limits
NO_x	20.88	40	Within Prescribed limits
Near Captive Power Plant			
PM_{10}	59.20	60	Within Prescribed limits
$PM_{2.5}$	22.43	40	Within Prescribed limits
SO_2	12.67	50	Within Prescribed limits
NO_x	20.53	40	Within Prescribed limits
Buffer Zone			
Mines			
PM_{10}	58.07	60	Within Prescribed limits
$PM_{2.5}$	23.25	40	Within Prescribed limits
SO_2	11.75	50	Within Prescribed limits
NO_x	17.80	40	Within Prescribed limits
Miryan			
PM_{10}	57.05	60	Within Prescribed limits
$PM_{2.5}$	20.45	40	Within Prescribed limits
SO_2	11.48	50	Within Prescribed limits
NO_x	19.02	40	Within Prescribed limits
Polkampalli			
PM_{10}	56.17	60	Within Prescribed limits
$PM_{2.5}$	20.23	40	Within Prescribed limits
SO_2	9.90	50	Within Prescribed limits
NO_x	17.75	40	Within Prescribed limits
Bhaktampalli			
PM_{10}	57.55	60	Within Prescribed limits
$PM_{2.5}$	20.53	40	Within Prescribed limits
SO_2	11.13	50	Within Prescribed limits
NO_x	18.97	40	Within Prescribed limits
Sangam			
PM_{10}	55.90	60	Within Prescribed limits
$PM_{2.5}$	19.57	40	Within Prescribed limits
SO2	10.08	50	Within Prescribed limits
NOx	18.23	40	Within Prescribed limits

Kallur			
PM $_{10}$	56.93	60	Within Prescribed limits
PM $_{2.5}$	21.03	40	Within Prescribed limits
SO2	11.23	50	Within Prescribed limits
NOx	18.27	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	8.04	5.5 to 9.0	Within prescribed limits
TDS	940	2100	Within prescribed limits
TSS	9.23	100	Within prescribed limits
Chlorides	189.75	1000	Within prescribed limits
Sulphates	46.95	1000	Within prescribed limits
Dissolved Phosphates (as P)	<1.0	5.0	Within prescribed limits
(b) Air			
Pollutant	**Concentrations of Pollutants in Discharges (Mass/volume) mg/Nm^3**	**Standards**	**Percentage of variation from prescribed standards with reasons**
PM	20.7	50	Within prescribed limits
SO2	368.8	600	Within prescribed limits
NOx	180.6	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 (2022-2023)	**During the Current Financial Year (2023-2024)**
(a)	From Process Used Oil (Category No 5.1)	1.3 (used for in-house lubrication)	2.02 (0.5 KL utilized in-house lubrication)
(b)	From Pollution Control	NIL	Nil

	Facilities		

Hazardous Waste Category	Quantity Received In MT	Quantity Co-processed In MT
28.1 (Solid)	93.69	93.69
28.1 (Liquid)	624.38	624.38
36.1	1391.6	1391.6
28.6	2594.92	2594.92
28.3	419.1	419.1
35.3	438.58	438.58
5.2	569.13	569.13
21.1	257.63	202.76
28.5	145.27	145.27
Non Hazardous Waste		
RDF	18986.72	19263.86
Plastic/MLP	337.87	546.29
Dolochar	0	22.67
Bio Fuel	3031.24	5112.59
Other Waste	47.6	47.6

PART – E

Solid Wastes

Solid Waste		Total Quantity in metric tons	
		During the Previous Financial Year (2022-2023)	During the Current Financial Year (2023-2024)
(a)	From Process:	Nil	
(b)	From Pollution Control Facilities- Generated a. STP Sludge b. Fly Ash c. Bottom Ash	 NIL 20858 1397.65	 NIL 27746.26 4058
(c)	1. Quantity recycled or re-utilized within the unit a. STP Sludge b. Fly Ash c. Bottom Ash	 NIL 17356.52 1397.65	 NIL 27746.26 4058
	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 (01.04.2023) : NIL Generation (Apr'23 - Mar'24) : 2.02 KL Consumption (Apr'23 - Mar'24) : 2.02 KL sold to authorized recycler (0.5 KL utilized in-house lubrication) Closing Stock (31.03.2024) : 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.
(2)	**Solid Waste** Bottom Ash	Opening stock (01.04.2023) : Nil MT Generation (Apr'23 – Mar'24) : 4058 MT Consumption (Apr'23 – Mar'24) : 4058 MT Closing stock (as on 31.03.2024) : 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 01.04.2023) : 100 MT Generation (Apr'23 – Mar'24) : 27746.26 MT Consumption (Apr'23 – Mar'24) : 27746.26 MT Closing stock (as on 31.03.2024): 100 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.
- 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

The expenditure toward environmental protection measure during the period April-2023 to March-2024 is given below:

S. No.	Description	Amount (in lakh)
1	Plantation	1.0
2	Env. Monitoring (Plant and Mines)	6.0
3	Technical consultancy charges (Plant and Mines)	5.0
4	Pollution control equipment's maintenance (Plant and Mines)	99.83
	Total	**111.83**

PART – I

Any other particulars for improving the quality of environment

a. We have full-fledged Environment Department for development of greenbelt, monitoring & maintenance of pollution control equipment and environmental management at site.
b. Regular monitoring is being done for stack emissions, ambient air quality, ambient noise level and ground water quality. Data analysis is being done for further improve of the environment quality of the plant area.
c. Maintenance department is doing regular checking and scheduled maintenance of all the pollution control devices.
d. We have installed Continuous Emission Monitoring System (CEMS) to display the data on CPCB and KSPCB web sites.
e. Domestic waste water generated is being treated in Sewage Treatment Plant (STP) and treated water is being utilized in plantation & gardening.
f. We are maintaining Zero Liquid Discharge (ZLD) from our premises.
g. Piezometer is constructed for monthly water level monitoring.
h. Integrated Management Systems have been Implemented - ISO 9001, ISO 14001 & OSHAS 45001.

Place: Kallur
Date : 17.09.2024

Name : **K Saikumar**
Designation : **Unit Head**