

(FORM - V)

(See Rule 13)

Environmental Statement for the financial year ending the 31<sup>st</sup> March 2024

PART - A

Ref: GSCL/EHS/2024-25/90

Dated: 27.09.2024

To  
The Member Secretary,  
Meghalaya State Pollution Control Board,  
Arden, Lumpynggad,  
Shillong-793014.

**Sub: Submission for Environmental Statement (Form-V) for the Financial Year ending the 31<sup>st</sup> March 2024.**

Dear Madam / Sir,

With reference to the subject as cited above, Kindly find attached herewith the Environmental Statement (Form-V) for the period of **01.04.2023 to 31.03.2024**.

We request you to acknowledge the receipt.

Thanking You,

Yours faithfully  
For Goldstone Cements Ltd.

*[Signature]*  
SVR Gupta  
Executive President



Encl: Environmental Statement report (Form-V).

# (FORM –V)

(See Rule 14)

## Environmental Statement for the financial year ending the 31<sup>st</sup> March 2024

### PART –A

- i. Name and address of the owner/  
Occupier of the industry operation  
Or process : **M/s. Goldstone Cements Limited.**  
Vill- Musiang Lamare (old), Khliehriat,  
Dist- East Jaintia Hills, Meghalaya-793200
- ii. Industry Category  
Primary (STC Code) : Red Category  
Secondary (SIC Code)
- iii. Production Capacity : 0.88 Million Ton Cement per annum  
0.561 Million Ton Clinker per annum  
10 MW Captive Power Plant
- iv. Year of establishment : F.Y. 2016-17  
(Commercial Production Date: 02.07.2016)
- v. Date of the Last Environmental  
Statement Submitted : 28.09.2023

### PART-B

#### Water and Raw Material Consumption

i. **Water Consumption m<sup>3</sup>/d:**

Process : 208 m<sup>3</sup> /day

Cooling : 101.68 m<sup>3</sup>/day (including re-circulation and dust suppression)

Domestic:135 m<sup>3</sup>/day

Name of Products	Process Water consumption per Unit of Product Output	
	During the Previous Financial Year (2022-23)	During the Current Financial Year (2023-24)
	(1)	(2)
(1) Clinker	Dry Process Plant (No process water consumption)	
(2) Cement		
(3) Power	0.756 m <sup>3</sup> /MW	0.809 m <sup>3</sup> /MW

ii. **Raw Material Consumption**

*Name of Raw Materials	Name of Products	Consumption of Raw Material Per Unit Of Output	
		During the Previous Financial Year (MT) 2022-23	During the Current Financial Year (MT) 2023-24
1. Lime/ Dolomitic Stone	Clinker	1.31	1.32
2. Additives		0.20	0.20
3. Fly ash	Cement	0.22	0.26
4. Gypsum		0.017	0.015

\*Industry may use codes if disclosing detail of raw material would violate contractual obligations, otherwise all industries have to name the raw materials used.

## PART- C

Pollution Discharged to Environment/Unit of Output  
(Parameter as specified in the consent issued)

1) Pollutants	Quantity of Pollutants Discharged (Mass/day)	Concentrations of Pollutants in Discharges (Mass/Volume)	Percentage of Variation from prescribed standards with reasons
a) Water	Not applicable (zero liquid discharge plant)		
b) Air	Please refer <b>Annexure- I</b>		No deviation from prescribed standards

## PART -D

### Hazardous Wastes

(As specified under Hazardous Waste Management & Handling Rules,1989)

Hazardous Wastes	Total Quantity	
	During the Previous Financial Year (2022-23)	During the Current Financial Year (2023-24)
<b>a) Form Process:</b>		
1. Used oil	1.98 KL	2.0 KL
2. Chemical Container	33 Nos.	18 Nos.
3. Turbine Oil	0.098 KL	0.120 KL
4. Gear Oil	0.199 KL	0.072 KL
<b>b) From Pollution Control Facilities:</b>	NIL	NIL
All the quantity of used oil, Turbine oil & Gear Oil come out as reject from different gear application and bearings, were utilized in-house and partial quantity sold to authorized recycler.		

## PART- E

### Solid Wastes

		Total Quantity	
		During the Previous Financial Year (2022-23)	During the Current Financial Year (2023-24)
a)	From Process	NIL	NIL
b)	From Pollution Control Facility	Dust Collected in ESPs, Bag Houses and Bag Filters are recycled back into the System.	
c)	(1) Quantity recycled or re-utilized within the unit	All fly ash & bed ash came out were re-utilized in Cement plant.	
	(2) Sold Scrap Battery	NIL	23.29 MT
	Scrap Plastic	332.04 MT	44.29 MT
	Iron Scrap	NIL	126.51 MT
(3) Disposed (Saw Dusts co-processed)	124.63 MT	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.**

1. Hazardous waste generated in the form of used oil, gear oil, turbine oil which is stored in barrels at safe & dedicated area, utilized in-house in system and remaining quantity being sold to authorized recycler. Chemical containers are stored at safe & dedicated area.
2. Fly ash collected in pollution control equipment (ESP) of CPP is utilized for PPC grade cement manufacturing in own as well as in near vicinity cement plants. Bed Ash generated from process in also utilized for cement manufacturing and coal dust collected from bag filters is recycled into the system

## **PART –G**

**Impact of the pollution control measure on Conservation of natural resources and on the cost of production.**

- Goldstone Cements Limited is making continuous efforts to conserve natural resources with environmentally Sound and green technology.
- Adopted dry process technology, where there is no major water consumption in process. There is no effluent discharge from the plant. The advantage of dry process is also in fuel economy.
- The stack emissions from the plant are controlled by equipment like ESPs, and Bag Houses. Designed to control the ambient air quality level within permissible limits.
- The Pollution abatement practices adopted by us save precious raw material / product and greatly help in conserving valuable natural resources, ultimately reducing the manufacturing cost.
- Total 5 nos. of opacity monitor already installed in Raw Mill & Kiln Stack, Coal Mill Stack, Cooler ESP stack, Cement Mill Stack & CPP stack and real time stack monitoring data are being transmitted to CPCB server.
- Bag filters are installed in each transfer points to reduce the fugitive emissions. The material collected in the hoppers of pollution control equipment, recycled back into process, neutralize the cost of operation of pollution control equipment. Hence no cost impact on the production cost.

## **PART- H**

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

- As per EC condition, we have developed 33.6% area in and around the cement plant under green belt and we will continue this process of plantation at regular intervals. (Photograph 1 attached as Annexure II)
- Water tanker is used for spraying in the plant area as well as the nearby villages regularly for dust suppression. RCC roads are made to control the fugitive dusts. Water sprinklers are installed in roadsides.
- Suitable interlocks have been provided for Gear box & Girth Gear Cooling fans to avoid idle running of these fans.

## **PART- I**

### **Any other particulars for improving the quality of the environment.**

1. Continuous monitoring of stack emission, ambient air, and noise and water quality is done. Necessary action plan is prepared and implemented accordingly.
2. Scheduled maintenance of all the pollution control devices is done on regular basis.
3. Water sprinkling on the unpaved surface for dust suppression. Installation of Water sprinklers in road side. RCC roads are made to control the fugitive emissions.
4. "World Environment Week" is celebrated commencing from 30<sup>th</sup> May to 5<sup>th</sup> June with objective of increase awareness on specific environmental issues relevant to the industry utilities and operations.
5. Development of greenbelt in & around the plant & colony. The tree species planted are Neem, Khokon, Champa, Agarwood, Mahagony, Bokul, Mango, Litchi, Black Jamun, Almond, Cycus, Green Hedge, Coloured Hedge, Fycus, Royal Plam, Areca Plam, Thuja, Red Bottle Brush, Ashoka, Gulmohor, Golden Bottle Brush, Chinese Plam, Night Jasmine, Ceylon, Tahiti, Aclypha, Hibiscus, yucca Aloifolia, Phonix, Furcraea, Budhist Bamboo, Bougenvelia, Draceena, Calendula, Crysanthemum, Phlox, Merigold, , Primola, Rananculus, Statics, Cosmos, Dianthus, Dhalia, Gazania, Poppy, Petunia, Lily, Anthurium, Bolsom, Verbena, Salvia, Vinka, Exora, Celosia, Ejar, Sirish, Tiachap, Kanchan, Sonaru, Bokul, Hibiscus Mutabilis, Tagar, Kamini, Arjun, Dalchini, Gamari, Hollock, M Sim, Sisoo, Mehgoni, Khair, Guava, Amlakhi, Bel, Bhomora, Bogi Poma, Casheru, Segun, Silika, Soom, Agar, Tezpat, Bogari, Rawb Tenga, Kardoi, Mulberry etc. Rate of survival 90%.
6. Proper lubrication, housekeeping and installation of silencers are carried out in Fan inlet ducts to reduce excessive noise generation.
7. Using LED Lamps at residential colony, administrative building, all haul road CCR building & plant area for energy conservation.
8. Minimizing the dust concentration by providing covered sheds for raw material storage, covered belt conveyors and water spraying system for raw materials.
9. Medical camp was organized at the plant premises and 351 persons benefited from this program (Photograph 2 as attached as Annexure II).

## Environmental Monitoring Average Data, Year 2023-24

## Stack Emission Monitoring:

Parameters	Unit	Kiln/Raw Mill/Bag house	Kiln cooler ESP	Coal Mill Bag Filter	Cement Mill Bag Filter	CPP ESP
Particulate Matter	mg/Nm <sup>3</sup>	23.0	23.5	23.7	20.4	41.3
SO <sub>2</sub>	mg/Nm <sup>3</sup>	428.3	-	-	-	476.8
NO <sub>x</sub>	mg/Nm <sup>3</sup>	243.1	-	-	-	212.8
Hg	mg/Nm <sup>3</sup>	0.001	-	-	-	0.00
HCL	mg/Nm <sup>3</sup>	8.7	-	-	-	-
HF	mg/Nm <sup>3</sup>	BDL [MDL: 1.0]	-	-	-	-
TOC	mg/Nm <sup>3</sup>	4.12	-	-	-	-
Hg and its compounds	mg/Nm <sup>3</sup>	BDL [MDL: 0.001]	-	-	-	-
Cd+Tl and their compounds	mg/Nm <sup>3</sup>	BDL [MDL: 0.001]	-	-	-	-
Sb+AS+Pb+CO+Cr+Cu+Mn+Ni+V and their compounds	mg/Nm <sup>3</sup>	0.015	-	-	-	-
Dioxins and Furans	ngTEQ/Nm <sup>3</sup>	BDL [MDL: 0.001]	-	-	-	-

## Ambient Air Quality Monitoring:

Name of the station	Parameters in µg/m <sup>3</sup>			
	PM10	PM2.5	SO <sub>2</sub>	NO <sub>2</sub>
Near CPP (Water reservoir)	53.0	27.8	7.2	9.4
Near CCR (Material Yard)	54.3	29.3	6.9	9.3
Near Guest House (Yamuna Sadan)	39.1	19.5	<5.0	<6.0
Residential Colony	38.3	20.2	<5.0	<6.0





Photo-1 (Green Belt area has been developed in the Residential Colony)



Photo-1 (Green Belt area has been developed in the Residential Colony)



