O/c

BLACKTIGER CEMENT

HILA NA PAOGE

Ref: GSCL/EHS/2023-24/30 Dated: 28.09.2023

To,
The Member Secretary,
Meghalaya State Pollution Control Board
Arden, Lumpyngngad,
Shillong, Meghalaya 793014

Sub: Submission of Environmental Statement (Form-V) for the financial year ending 31st March 2023.

Dear Sir,

With reference to the subject as cited above, kindly find attached herewith the Environmental Statement (Form-V) for the period of 01.04.2022 to 31.03.2023.

We request you to acknowledge the receipt.

Thanking You,

Yours faithfully
For **Goldstone Cements Ltd.**

28/9/23

SVP Gupta
Executive President

Encl: Environmental Statement Report (Form-V)

MEGHALAYA STATE POLLUTION CONTROL BOARD * SHILLONG *

29/9/23

FORM –V

(See Rule 14)

Environmental Statement for the financial year ending the 31st March 2023

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 Dist. East Jaintia Hills, Meghalaya-793200
(ii)	Industry Category Primary (STC Code) Secondary (SIC Code)	:	Red Category
(iii)	Production Capacity-Units	:	Cement : 0.88 MTPA Clinker : 0.56 MTPA Captive Power : 10 MW
(iv)	Year of establishment	:	2016 (Commercial Production Date 02.07.2016)
(v)	Date of the Last Environmental Statement Submitted	:	16.08.2022

PART-B

Water and Raw Material Consumption

i. Water Consumption m^3/d:

Process **:** 160 m3 /day

Cooling : 85.7 m3/day

Domestic : 250 m3/day

Name of Products	Process water consumption per unit of product output	
	During the previous financial year (2021-22)	During the ccurrent financial year (2022-23)
	(1)	(2)
(1) Clinker & Cement	Dry process plant (no process water consumption)	
(2) Power	0.822 m3/MW	0.756 m3/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) 2021-22	During the current financial Year (MT) 2022-23
1. Lime stone & Dolomite	Clinker	1.35	1.31
2. Additives		0.25	0.20
3. Fly ash	Cement	0.20	0.22
4. Gypsum		0.007	0.017

*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) Pollution	Name of source	Quantity of Pollutants Discharged (PM, Kg/day)	Concentrations of Pollutants in Discharges (PM, mg/Nm^3)	Percentage of Variation from prescribed standards with reasons
a) Water	Not applicable (zero liquid discharge plant)			
b) Air	Please refer Annexure I			No deviation from prescribed standards

PART – D

Hazardous Wastes

(As specified under The Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. (as amended to date)

Hazardous Wastes	**Total Quantity**	
	During the Previous Financial Year(2021-22)	**During the Current Financial Year(2022-23)**
a) Form Process:		
1. Used oil	0.067 KL	1.98 KL
2. Chemical Container	04 Nos	33 Nos.
3. Turbine Oil	NIL	0.098 KL
4. Gear Oil	NIL	0.199 KL
b) From Pollution Control Facilities:	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 remaining quantity being sold to authorized recycler.		

PART- E

Solid Wastes

		Total Quantity	
		During the Previous Financial Year(2021-22)	**During the Current Financial Year (2022-23)**
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 Scrap Plastic Bags Iron Scrap	 52 Nos. 225.87 MT 663.99 MT	 NIL 332.04 MT NIL
	(3) Disposed (Saw Dusts co-processed)	NIL	124.63 MT

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 is 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.

Development of green belt in & around the plant & colony. Planting trees is ongoing process. Around 2323 nos. saplings were planted during the FY 2022-23. The said program will continue for coming year also. (Photograph 1attached 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.

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 30th May to 5th 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, Crysenthemum, 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 307 persons benefited from this program (Photograph 2 as attached as Annexure II).

Annexure I

Environmental Monitoring Average Data, Year 2022-23

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^3	19.78	23.0	21.50	15.42	41.08
SO_2	mg/Nm^3	501.3	-	-	-	469.5
NOx	mg/Nm^3	237.33	-	-	-	215.83
Hg	mg/Nm^3	BDL [MDL:0.001]	-	-	-	0.003
HCL	mg/Nm^3	BDL [MDL:1.0]	-	-	-	-
HF	mg/Nm^3	BDL [MDL:1.0]	-	-	-	-
TOC	mg/Nm^3	2.13	-	-	-	-
Hg and its compounds	mg/Nm^3	BDL [MDL:0.001]	-	-	-	-
Cd+TI and their compounds	mg/Nm^3	BDL [MDL:0.001]	-	-	-	-
Sb+AS+Pb+CO+Cr+Cu+Mn+Ni+V and their compounds	mg/Nm^3	0.005	-	-	-	-
Dioxins and Furans	$ngTEQ/Nm^3$	BDL [MDL:0.01]	-	-	-	-

Ambient Air Quality Monitoring:

Name of the station	Parameters in µg/m3			
	PM10	PM2.5	SO_2	NO_2
Near CPP (Water reservoir)	50.28	28.08	6.6	8.58
Near CCR (Material Yard)	48.58	28.32	6.15	8.66
Near Guest House (Yamuna Sadan)	33.01	18.96	<5	<6
Residential Colony	33.75	21.38	<5	<6

Photographs

Photo 1 - Greenbelt in the plant premises patch at CPP

Photo 2 - Medical camp