

Ref: GSCL/EHS/2018-19/05

Dated 14.10.2018

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



Sub: Submission for Environmental Statement (Form-V)

Sir,

With reference to the subject as cited above, we would like to submit Environmental Statement (Form-V) for the period 01.04.2017 to 31.03.2018. We have enclosed Monthly Environmental Monitoring Report for your reference.

We request you to acknowledge the receipt.

Thanking You,

Yours faithfully
For Goldstone Cements Ltd

Authorised Signatory

14/10/18

Encl: Monthly Environmental Monitoring Report.

CC: 1. Regional Director, Central Pollution Control Board, Regional Directorate-North East.
2. Ministry of Environment Forest & Regional office, Shillong.

Central Pollution Control Board
क्षेत्रीय निदेशालय उत्तर पूर्व शिलांग - ७९३०१४
Regional Directorate - North East, Shillong - 793014
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार
Ministry of Environment, Forest & Climate Change, Govt. of India
RECEIPT NO
DATED 16/10/18



Goldstone Cements Limited
CIN No. : U26940ML2007PLC008298

ENVIRONMENTAL STATEMENT (FORM -V)

Of

M/S GOLDSTONE CEMENTS LTD.

Vill - Musiang Lamare (old), Khliehriat, Dist - East Jaintia Hills, Meghalaya
(1st April 2017 - 31st March 2018)

PART -A

- Name and address of the owner/
Occupier of the Industry operation
Or process
Shri M K Ghosh
Plant Head
M/S Goldstone Cements Ltd.
Vill Musiang Lamare (old), Khliehriat
Dist- East Jaintia Hills, Meghalaya
- Industry Category
Primary (S. T. C. Code)
Secondary (S. T.C. Code)
Red Category
- Production Capacity
0.88 Million Ton Cement
0.56 Million Ton Clinker
10 MW Captive Power Plant
- Year of establishment
2010. Commercial Production on 02.07.2016
- Date of the Last Environmental
Statement Report Submitted
04.11.2017

PART-B

Water and Raw Material Consumption

I. Water Consumption m³/d:

- Process : 250 m³ /day
Cooling, re circulation and dust suppression : 60 m³/day
Domestic : 150 m³/day

Name of Product	Process Water consumption per Unit of Product Output	
	During Previous Financial Year (16-17)	During Current Financial Year (17-18)
Cement	0.15 m ³ /ton	Nil
Power		1.05 m ³ /thousand Kwh

II. Raw Material Consumption

Name of Raw Material	Name of Product	Consumption of Raw Material		
		During Previous Financial Year (16-17)(MT)	During Current Financial Year (17-18) (MT)	Consumption of raw material per Unit of output
1. Lime stone & Dolomatic Stone	Cement	2,06,606.14	5,62,751.61	1.41
2. Additives		26,831.838	72,112.607	0.18
3. Fly ash		139.000	45,134.159	0.23
4. Gypsum		20.600	555.841	0.00

PART- C

Pollution Discharged to Environment/Unit of Out Put:

Sl. No	Pollutants	Quantity of Pollutants Discharged (Mass/day)	Concentration of Pollutants in Discharge (Mass/Volume)	Percentage of Variation from prescribed standard with reason
a)	Water	N.A.	N.A.	As plant is being operated on dry process technology, no liquid effluent is generated from the cement plant process. Domestic water generated from residential colony, office toilets and mess is disposed off in soak pit via septic tank. We have installed Effluent Treatment Plant / Sewage Treatment Plant.
b)	Air	Please refer Annexure- I, II, III & IV		

PART -D

Hazardous Waste

All the quantity of used oil & used grease come out as reject from different gear application and bearings are sold to authorized recycler & used in in-house.

Hazardous Waste	Total Quantity (Liters/Kgs)	
	During Previous Financial Year (2016-17)	During Current Financial Year (2017-18)
a) Used oil & Grease	15,000 Lits/Year.	11470 Lits
b) Fly Ash	3632890 Kgs	13768046 Kgs
c) Chemical Container	----	198 Nos
d) Turbine Oil	----	104 Ltrs
e) Gear Oil	----	560 Ltrs

PART- E

Solid Waste

Sl. No.	Solid Waste	Total Quantity in MT	
		During Previous Financial Year (16-17)	During Current Financial Year (17-18)
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	100%	100%
	2) Sold	NIL	NIL
	3) Disposed (Fly ash generated from CPP & consumed into Cement Plant)	Fly Ash- 3632.89 MT	Fly Ash - 13768.046 MT
d)	Iron Scrap	NIL	20.24 MT
e)	Old & Used I.T. Materials	NIL	0.015 MT

PART -F

Please Specify the Characterization (in terms of composition and quantum) of Hazardous as well as Solid waste and indicate disposal practice adopted for both these categories of wastes.

Hazardous Waste:-

Description of Hazardous Waste	Qty. of waste generated during the year (17-18)	Disposal Method
a) Used oil & Grease	11470 Lits/Year.	300 Ltr used oil used in lubrication of DPC Chain 2140 Kg Grease used in lubrication of Kiln seal Remaining are kept in central store and may be sold to authorized recycler.
b) Fly Ash	13768046 Kgs	consumed in cement plant
c) Chemical Container	198 Nos	Kept at central Store in designated place and may be sent to seller for refilling
d) Turbine Oil	104 Ltrs	Kept at central Store and may be used after filtration.
e) Gear Oil	560 Ltrs	Kept at central Store in designated place

Solid Waste:-

Other Solid Waste	Qty. of waste generated during the year (17-18)	Disposal Method
a) Iron Scrap	20.24 MT	17.73 MT sold to authorized vendor. Remaining are kept in central store in scrap yard.
b) Old & used I.T. materials	0.015 MT	Kept at central Store in prescribed place

PART -G

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

M/s Goldstone Cement Ltd is making continuous efforts to conserve natural resources with environmentally Sound and green technology.

Adopted dry process technology, where there is no water consumption also makes zero 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 emission (SPM) level within permissible Limits.

The dust is collected in the above mentioned dust catchers. This dust is recycled to the system, so as to convert finally to the product. These ways the natural resources are conserved in the system.

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 data are being transferred to CPCB, New Delhi.

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

Development of greenbelt in & around the plant & colony.

Planting trees is ongoing process. Around 2012 nos. of sapling of different native species was planted during the FY 2017-2018. The said program will continue for coming year also.

Water tanker is used for spraying in the plant area as well as the nearby regularly for dust suppression.

Suitable interlocks have been provided for Gear box & Girth Gear Cooling fans to avoid idle running of these fans.

PART- I

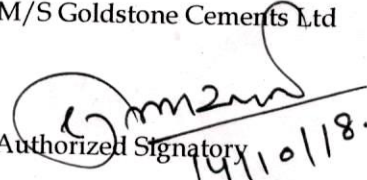
Any other particulars for improving the quality of the environment

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. More number of Plantation will be done in the coming future.
4. Water sprinkling on the unpaved surface for dust suppression.
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 etc. Rate of survival 93%.
6. Proper lubrication and housekeeping to avoid excessive noise generation.

To substantiate above statement, latest emission monitoring report is enclosed herewith.

- Annexure- I : Ambient air quality report
Annexure- II : Fugitive Emission report
Annexure- III : Stack Emission level report
Annexure- IV : Ambient Noise quality report.

M/S Goldstone Cements Ltd


Authorized Signatory

14/10/18.

Report No.: ENV/GSCL/AAQ/SEPT/18-19/01
 Date : 01/10/2018

GOLDSTONE CEMENTS LIMITED

Village- Musiang Lamare (Old)
 P. O.: - Khliehriat
 Meghalaya- 793200

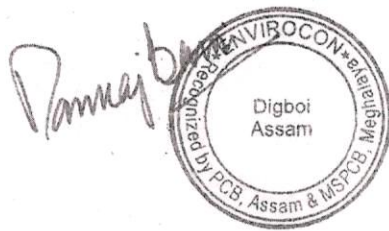
AMBIENT AIR QUALITY TEST RESULTS

SL. No.	Location(s) ↓ Limit(s) →	Date of Sampling	PM 2.5 (µg/m ³)	PM 10 (µg/m ³)	NO ₂ (µg/m ³)	SO ₂ (µg/m ³)
			60 (24 Hrs. Av.)	100 (24 Hrs. Av.)	80 (24 Hrs. Av.)	80 (24 Hrs. Av.)
1.	Near CPP	20.09.2018	--	65.2	12.8	5.8
		21.09.2018	30.2	--	--	--
2.	Near Secondary Crusher	20.09.2018	--	69.8	9.6	5.1
		21.09.2018	26.1	--	--	--
3.	Near Fly Ash Shed	20.09.2018	--	73.9	8.4	ND
		21.09.2018	34.6	--	--	--
4.	Near Temple	20.09.2018	--	51.8	5.2	ND
		21.09.2018	19.2	--	--	--

ND: Not Detected

Analysis Protocol: IS 5182

Sampled & Analysed by: ENVIROCON, Digboi



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/GSCL/FE/SEPT/18-19/01

Date : 01/10/2018

GOLDSTONE CEMENTS LIMITED

Village- Musiang Lamare (Old)

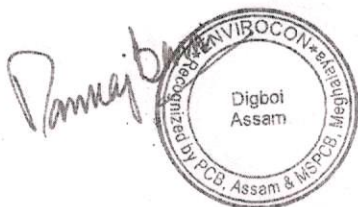
P. O.:- Khliehriat

Meghalaya- 793200

PROCESS FUGITIVE EMISSION TEST RESULTS

Date	Locations	Fugitive Emission Results for SPM ($\mu\text{g}/\text{m}^3$)	Limits ($\mu\text{g}/\text{m}^3$)
22.09.2018	Fly-ash Storage Section	2413	5000
21.09.2018	Coal Storage Section	924	2000
21.09.2018	Limestone Storage Section	1846	5000
22.09.2018	Cement Packing Section	2761	5000

Sampled & Analysed by: ENVIROCON, Digboi



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Report No.: ENV/GSCL/SE/SEPT/18-19/04

Date : 01/10/2018

GOLDSTONE CEMENTS LIMITED

Village- Musiang Lamare (Old)

P. O.:- Khliehriat

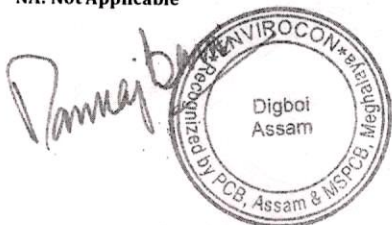
Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	GSCL/SE/SEPT/18-19/04		
02	Date of Sampling	21.09.2018		
03	Material of Construction	M. S.		
04	Stack Attached To	Cement Mill		
05	Flue Gas Temperature (°C)	65		
06	Exit Velocity of Gas (m/sec)	12.2		
07	Type of Fuel Used	NA*		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	28.2	mg/Nm ³	30
ii.	Sulphur Dioxide (as SO ₂)	BDL	mg/Nm ³	1000
iii.	Oxides of Nitrogen (as NO _x)	BDL	mg/Nm ³	800

BDL: Below Detection Limit

*NA: Not Applicable



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Report No.: ENV/GSCL/SE/SEPT/18-19/05

Date : 01/10/2018

GOLDSTONE CEMENTS LIMITED

Village- Musiang Lamare (Old)
 P. O.:- Khliehriat
 Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	GSCL/SE/SEPT/18-19/05		
02	Date of Sampling	21.09.2018		
03	Material of Construction	Refractory Brick		
04	Stack Attached To	Captive Power Plant (CPP)		
05	Flue Gas Temperature (°C)	89		
06	Exit Velocity of Gas (m/sec)	8.5		
07	Type of Fuel Used	Coal		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	33.9	mg/Nm ³	50
ii.	Sulphur Dioxide (as SO ₂)	534.3	mg/Nm ³	600
iii.	Oxides of Nitrogen (as NO _x)	200.5	mg/Nm ³	300

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Report No.: ENV/GSCL/SE/SEPT/18-19/03

Date : 01/10/2018

GOLDSTONE CEMENTS LIMITED

Village- Musiang Lamare (Old)

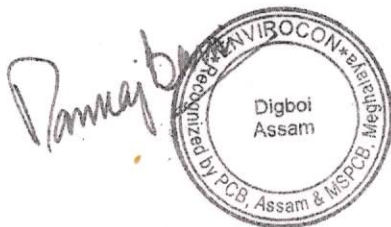
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Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	GSCL/SE/SEPT/18-19/03		
02	Date of Sampling	21.09.2018		
03	Material of Construction	M. S.		
04	Stack Attached To	Cooler E. S. P.		
05	Flue Gas Temperature (°C)	219		
06	Exit Velocity of Gas (m/sec)	13.1		
07	Type of Fuel Used	NA*		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	25.3	mg/Nm ³	30
ii.	Sulphur Dioxide (as SO ₂)	175.2	mg/Nm ³	1000
iii.	Oxides of Nitrogen (as NO _x)	79.2	mg/Nm ³	800

*NA: Not Applicable



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Report No.: ENV/GSCL/SE/SEPT/18-19/02

Date : 01/10/2018

GOLDSTONE CEMENTS LIMITED

Village- Musiang Lamare (Old)

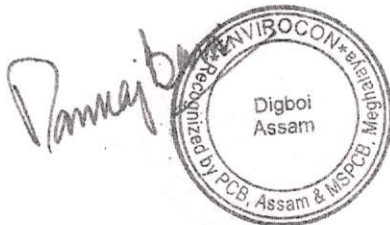
P. O.:- Khliehriat

Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	GSCL/SE/SEPT/18-19/02		
02	Date of Sampling	20.09.2018		
03	Material of Construction	M. S.		
04	Stack Attached To	Coal Mill		
05	Flue Gas Temperature (°C)	59		
06	Exit Velocity of Gas (m/sec)	8.3		
07	Type of Fuel Used	NA*		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	26.8	mg/Nm ³	30
ii.	Sulphur Dioxide (as SO ₂)	349.8	mg/Nm ³	1000
iii.	Oxides of Nitrogen (as NO _x)	194.7	mg/Nm ³	800

*NA: Not Applicable



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Date : 01/10/2018

GOLDSTONE CEMENTS LIMITED

Village- Musiang Lamare (Old)

P. O.:- Khliehriat

Meghalaya- 793200

STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	GSCL/SE/SEPT/18-19/01		
02	Date of Sampling	20.09.2018		
03	Material of Construction	M. S.		
04	Stack Attached To	R. A. B. H.		
05	Flue Gas Temperature (°C)	177		
06	Exit Velocity of Gas (m/sec)	12.4		
07	Type of Fuel Used	Kiln Coal		
08	Analysis Results of Flue Gas			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	21.4	mg/Nm ³	30
ii.	Sulphur Dioxide (as SO ₂)	720.8	mg/Nm ³	1000
iii.	Oxides of Nitrogen (as NO _x)	329.3	mg/Nm ³	800



Checked By: Mr. Pankaj Baroi, **ENVIROCON**

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Report No.: ENV/GSCL/NLM/SEPT/18-19/01

Date : 01/10/2018

GOLDSTONE CEMENTS LIMITED

Village- Musiang Lamare (Old)

P. O.:- Khliehriat

Meghalaya- 793200

NOISE LEVEL MEASUREMENT RESULTS

Measurement Date: 28.08.2018

Sl. No.	Location(s)	Day time		Night Time	
		Result(s) (dB - A)	Limit(s) (dB - A)	Result(s) (dB - A)	Limit(s) (dB - A)
1	Near Coal Mill	71	75	62	70
2	Near CPP Area	68	75	59	70
3	Near Limestone Storage Yard	63	75	48	70
4	Near Coal Storage Yard	62	75	53	70
5	Near R. A. B. H.	73	75	60	70
6	Near Cement Mill	69	75	62	70
7	Near Administrative Building	61	75	46	70
8	Power House	74	75	68	70

Pankaj Baroi


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