



HCCL/MSPCB/21-22/01

Date: 21/04/2021

To,  
✓ The Member Secretary,  
Meghalaya State Pollution Control Board  
ARDEN Lumpynggad  
Shillong (Meghalaya) -793014

**Subject:** Reports on Ambient air quality test results, Stack Emission Test Results, Waste Water Analysis (STP & ETP) & Fugitive Emission Test for the month of March 2021

Dear Sir,

Please find enclosed herewith to this letter the reports for the month of March 2021 for the following test results:

Sl No.	Test Results	Purpose
1	Ambient air quality	-
2	Stack Emission	B.F of Crusher
3	Stack Emission	R.A.B.H
4	Stack Emission	Coal Mill
5	Stack Emission	Cooler E.S.P
6	Stack Emission	Cement Mill
7	Stack Emission	Packing House
8	Waste Water Analysis Result	Treated STP & ETP Water Analysis

Thanking you,

For Hills Cement Company Ltd  
**HILLS CEMENT CO. LTD.**

Authorised Signatory

Copy To: - The Joint Director (S), Ministry of Environment, Forest & Climate Change  
NE Regional Office, Lumbatngen, Shillong 793021 for information

**HILLS CEMENT COMPANY LIMITED**





HCCL/MSPCB/21-22/01

Date: 21/04/2021

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**HILLS CEMENT COMPANY LIMITED**

*[Signature]*  
21/4/21



Report No.: ENV/HCCCL/21-22/AA-03/01

Date : 06/04/2021

Order No.: Nil

Date : 11/03/2019

Report Issued To : **HILLS CEMENT COMPANY LIMITED**

Village: Mynkree, 116 KM Stone, NH-44, Sub Division: Khliehriat, Dist.: Jaintia Hills, Meghalaya

### AMBIENT AIR QUALITY TEST RESULTS

Sl. No.	LOCATION(S) ↓	Date of Sampling	PM 2.5 ( $\mu\text{g}/\text{m}^3$ )	PM 10 ( $\mu\text{g}/\text{m}^3$ )	SO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	NO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )
	LIMIT(S) →	---	60	100	80	80
01	In-front of Guest House	24.03.2021	21.7	47.6	<5.0	6.3
02	Near Crusher Area	24.03.2021	24.5	51.2	5.3	6.9
03	In- Front of Compressor House (Cement Mill)	25.03.2021	22.8	48.3	6.2	8.4
04	Near Mines	25.03.2021	26.3	52.8	<5.0	<6.0

Analysis Protocol: IS 5182

*Pankaj Baroi*



Checked By: Mr. Pankaj Baroi, ENVIROCON

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**Associate Services:** Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.



Report No.: ENV/HCL/21-22/SE-03/01

Date : 06/04/2021

Order No.: Nil

Date : 11/03/2019

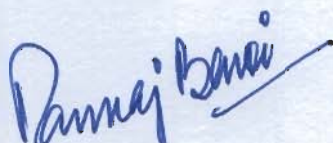
Report Issued To : **HILLS CEMENT COMPANY LIMITED**

Village: Mynkree, 116 KM Stone, NH-44, Sub Division: Khliehriat, Dist.: Jaintia Hills, Meghalaya

### STACK EMISSION TEST RESULTS

01	Test Ref. No.	HCCL/20-21/SE-03/01		
02	Date of Sampling	24.03.2021		
03	Material of Construction	M. S.		
04	Stack Attached To	B. F. of Crusher		
05	Stack Diameter (Meter)	1.0		
06	Flue Gas Temperature (°C)	28		
07	Exit Velocity of Gas (m/sec)	4.7		
08	Flow Rate (Nm³/hr)	13158		
09	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	21	mg/Nm³	30

\*NA: Not Applicable




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**Report No.: ENV/HCL/21-22/SE-03/02**
**Date : 06/04/2021**
**Order No.: Nil**
**Date : 11/03/2019**
**Report Issued To : HILLS CEMENT COMPANY LIMITED**
**Village: Mynkree, 116 KM Stone, NH-44, Sub Division: Khliehriat, Dist.: Jaintia Hills, Meghalaya**

### STACK EMISSION TEST RESULTS

01	Test Ref. No.	HCCL/20-21/SE-03/02		
02	Date of Sampling	24.03.2021		
03	Material of Construction	M. S.		
04	Stack Attached To	R.A.B.H.		
05	Stack Diameter (Meter)	3.0		
06	Flue Gas Temperature (°C)	180		
07	Exit Velocity of Gas (m/sec)	16.2		
08	Flow Rate (Nm³/hr)	271222		
09	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	18	mg/Nm³	30
ii.	Sulphur Dioxide (as SO₂)	732	mg/Nm³	1000
iii.	Oxides of Nitrogen (as NOₓ)	414	mg/Nm³	800

\*NA: Not Applicable




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Report No.: ENV/HCL/21-22/SE-03/03

Date : 06/04/2021

Order No.: Nil

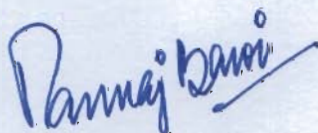
Date : 11/03/2019

 Report Issued To : **HILLS CEMENT COMPANY LIMITED**

Village: Mynkree, 116 KM Stone, NH-44, Sub Division: Khliehriat, Dist.: Jaintia Hills, Meghalaya

### STACK EMISSION TEST RESULTS

01	Test Ref. No.	HCCL/20-21/SE-03/03		
02	Date of Sampling	24.03.2021		
03	Material of Construction	M. S.		
04	Stack Attached To	Coal Mill		
05	Stack Diameter (Meter)	1.2		
06	Flue Gas Temperature (°C)	66		
07	Exit Velocity of Gas (m/sec)	13.3		
08	Flow Rate (Nm³/hr)	47608		
09	Type of Fuel Used	Coal		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	23	mg/Nm³	30
ii.	Sulphur Dioxide (as SO₂)	758	mg/Nm³	1000
iii.	Oxides of Nitrogen (as NOₓ)	393	mg/Nm³	800



 Checked By: Mr. Pankaj Baroi, **ENVIROCON**
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Report No.: ENV/HCL/21-22/SE-03/04

Date : 06/04/2021

Order No.: Nil

Date : 11/03/2019

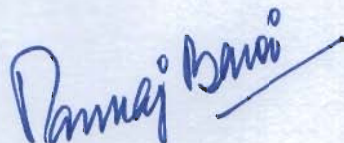
 Report Issued To : **HILLS CEMENT COMPANY LIMITED**

Village: Mynkree, 116 KM Stone, NH-44, Sub Division: Khliehriat, Dist.: Jaintia Hills, Meghalaya

### STACK EMISSION TEST RESULTS

01	Test Ref. No.	HCCL/20-21/SE-03/04		
02	Date of Sampling	25.03.2021		
03	Material of Construction	M. S.		
04	Stack Attached To	Cooler E.S.P.		
05	Stack Diameter (Meter)	2.8		
06	Flue Gas Temperature (°C)	221		
07	Exit Velocity of Gas (m/sec)	14.8		
08	Flow Rate (Nm³/hr)	197932		
09	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	18	mg/Nm³	30

\*NA: Not Applicable




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Report No.: ENV/HCL/21-22/SE-03/05

Date : 06/04/2021

Order No.: Nil

Date : 11/03/2019

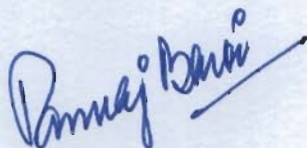
 Report Issued To : **HILLS CEMENT COMPANY LIMITED**

Village: Mynkree, 116 KM Stone, NH-44, Sub Division: Khliehriat, Dist.: Jaintia Hills, Meghalaya

### STACK EMISSION TEST RESULTS

01	Test Ref. No.	HCCL/20-21/SE-03/05		
02	Date of Sampling	25.03.2021		
03	Material of Construction	M. S.		
04	Stack Attached To	Cement Mill		
05	Stack Diameter (Meter)	1.2		
06	Flue Gas Temperature (°C)	60		
07	Exit Velocity of Gas (m/sec)	12.9		
08	Flow Rate (Nm³/hr)	47008		
09	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	19	mg/Nm³	30

\*NA: Not Applicable




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Report No.: ENV/HCL/21-22/SE-03/06

Date : 06/04/2021

Order No.: Nil

Date : 11/03/2019

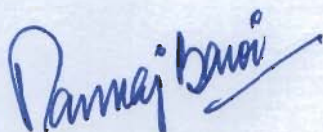
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Village: Mynkree, 116 KM Stone, NH-44, Sub Division: Khliehriat, Dist.: Jaintia Hills, Meghalaya

### STACK EMISSION TEST RESULTS

01	Test Ref. No.	HCCL/20-21/SE-03/06		
02	Date of Sampling	25.03.2021		
03	Material of Construction	M. S.		
04	Stack Attached To	Packing House		
05	Stack Diameter (Meter)	0.8		
06	Flue Gas Temperature (°C)	23		
07	Exit Velocity of Gas (m/sec)	13.5		
08	Flow Rate (Nm³/hr)	24597		
09	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	16	mg/Nm³	30

\*NA: Not Applicable




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Report No.: ENV/HCL/21-22/WW-03/01

Date : 06/04/2021

Order No.: HCL/HO/ENV/20-21/01

Date : 18/11/2020

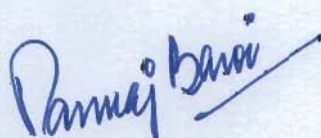
Report Issued To: **HILLS CEMENT COMPANY LIMITED**

Village: Mynkree, 116 KM Stone, NH-44, Sub Division: Khliehriat, Dist.: Jaintia Hills, Meghalaya

**WASTE WATER ANALYSIS RESULTS**

Sample Ref. No. : HCL/20-21/WW-2503/01  
Sample Type/Source : Waste Water (Treated)/STP Outlet  
Sample Collected By : Representative of ENVIROCON  
Sample Collected On : 25.03.2021  
Sample Received On : 27.03.2021  
Analysis Protocol : IS 3025

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Limit (As Per CPCB Standards)
1.	pH	--	6.62	5.5 - 9.0
2.	Temperature	°C	26.5	shall not exceed 5°C above the receiving water temperature
3.	Total Suspended Solids	mg/l	25	100
4.	Biochemical Oxygen Demand	mg/l	19	30
5.	Chemical Oxygen Demand	mg/l	79	250
6.	Oil & Grease	mg/l	<4.0	10
7.	Total Residual Chlorine	mg/l	<0.01	1.0
8.	Ammonical Nitrogen (as N)	mg/l	2.4	50
9.	Total Kjeldahl Nitrogen (as NH <sub>3</sub> )	mg/l	7.7	100
10.	Free Ammonia (as NH <sub>3</sub> )	mg/l	<0.01	5.0



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Report No.: ENV/HCL/21-22/WW-03/02

Date : 06/04/2021

Order No.: Nil

Date : 11/03/2019

Report Issued To: **HILLS CEMENT COMPANY LIMITED**

Village: Mynkree, 116 KM Stone, NH-44, Sub Division: Khliehriat, Dist.: Jaintia Hills, Meghalaya

### WASTE WATER ANALYSIS RESULTS

Sample Ref. No. : HCCL/20-21/WW-2503/02  
Sample Type/Source : Waste Water (Treated)/ETP Outlet  
Sample Collected By : Representative of ENVIROCON  
Sample Collected On : 25.03.2021  
Sample Received On : 27.03.2021  
Analysis Protocol : IS 3025

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Limit (As Per CPCB Standards)
1.	pH	--	6.81	5.5 - 9.0
2.	Temperature	°C	24.2	shall not exceed 5°C above the receiving water temperature
3.	Total Suspended Solids	mg/l	26	100
4.	Biochemical Oxygen Demand	mg/l	20	30
5.	Chemical Oxygen Demand	mg/l	86	250
6.	Oil & Grease	mg/l	<4.0	10
7.	Total Residual Chlorine	mg/l	<0.01	1.0
8.	Ammonical Nitrogen (as N)	mg/l	2.6	50
9.	Total Kjeldahl Nitrogen (as NH <sub>3</sub> )	mg/l	9.1	100
10.	Free Ammonia (as NH <sub>3</sub> )	mg/l	<0.01	5.0

*Pankaj Baroi*



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Report No.: ENV/HCL/21-22/FE-03/01

Date : 06/04/2021

Order No.: HCL/HO/ENV/20-21/01

Date : 18/11/2020

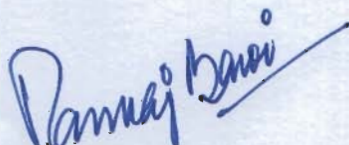
Report Issued To: **HILLS CEMENT COMPANY LIMITED**

Village: Mynkree, 116 KM Stone, NH-44, Sub Division: Khliehriat, Dist: Jaintia Hills, Meghalaya

**PROCESS FUGITIVE EMISSION TEST RESULTS**

Sl. No.	Locations	Date of Sampling	Results for SPM ( $\mu\text{g}/\text{m}^3$ )	Limits ( $\mu\text{g}/\text{m}^3$ )
01	Coal Storage Section	24.03.2021	833	2000
02	Lime Stone Storage Section	24.03.2021	1510	5000
03	Fly-ash Storage Section	25.03.2021	2239	5000
04	Cement Packing Section	25.03.2021	3005	5000

Analysis Protocol: IS 5182

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

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