

Report No.: ENV/HCCL/AAQ/APR/19-20/01

Date : 04/05/2019

W. O. No. : Nil

Date : 11/03/2019

**M/s 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 ( $\mu\text{g}/\text{m}^3$ )	NO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	SO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )
	Limit(s) →		60 (24 Hrs. Av.)	100 (24 Hrs. Av.)	80 (24 Hrs. Av.)	80 (24 Hrs. Av.)
1.	In-front of Guest House	18.04.2019	18.4	41.7	BDL	BDL
2.	Near Crusher Area	18.04.2019	31.4	64.2	5.6	BDL
3.	In- Front of Compressor House (Cement Mill)	19.04.2019	24.6	58.7	7.8	BDL
4.	Near ETP	19.04.2019	21.7	52.6	4.8	BDL

Analysis Protocol: IS 5182

BDL: Below Detectable Level



Pankaj Baroi  
Digboi Assam  
Checked by Pollution Control Board, Assam

Checked By: Mr. Pankaj Baroi, ENVIROCON

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**Core Services:** Environmental Monitoring & Data Generation, EIA & EMP, Environmental Audit & Allied Environmental Management jobs  
**Associate Services:** Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

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Meghalaya

**STACK EMISSION TEST RESULTS**

01	Stack Emission Test Ref. No.	HCCL/SE/19-20/04-01		
02	Date of Sampling	18.04.2019		
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)	27		
07	Exit Velocity of Gas (m/sec)	4.1		
08	Flow Rate (Nm <sup>3</sup> /hr)	11,517		
09	Type of Fuel Used	NA*		
10	<b>Analysis Results of Flue Gas</b>			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	18.6	mg/Nm <sup>3</sup>	30

\*NA: Not Applicable



*Pankaj Baroi*  
ENVIROCON  
Assam  
Recognised By Pollution Control Board, Assam

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Report No.: ENV/HCLL/SE/APR/19-20/02

W. O. No. : Nil

Date : 04/05/2019

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Sub Division: Khliehriat, Dist.: Jaintia Hills

Meghalaya

**STACK EMISSION TEST RESULTS**

01	Stack Emission Test Ref. No.	HCCL/SE/19-20/04-02		
02	Date of Sampling	18.04.2019		
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)	178		
07	Exit Velocity of Gas (m/sec)	13.2		
08	Flow Rate (Nm <sup>3</sup> /hr)	2,21,975		
09	Type of Fuel Used	NA*		
10	<b>Analysis Results of Flue Gas</b>			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter (as PM)	23.4	mg/Nm <sup>3</sup>	30
ii.	Sulphur Dioxide (as SO <sub>2</sub> )	765.87	mg/Nm <sup>3</sup>	1000
iii.	Oxides of Nitrogen (as NO <sub>x</sub> )	475.04	mg/Nm <sup>3</sup>	800

\*NA: Not Applicable



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**STACK EMISSION TEST RESULTS**

01	Stack Emission Test Ref. No.	HCCL/SE/19-20/04-03		
02	Date of Sampling	18.04.2019		
03	Material of Construction	M. S.		
04	Stack Attached To	Coal Mill		
05	Stack Diameter (Meter)	1.2		
06	Flue Gas Temperature (°C)	54		
07	Exit Velocity of Gas (m/sec)	9.1		
08	Flow Rate (Nm <sup>3</sup> /hr)	33,769		
09	Type of Fuel Used	Coal		
10	<b>Analysis Results of Flue Gas</b>			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	28.2	mg/Nm <sup>3</sup>	30
ii.	Sulphur Dioxide (as SO <sub>2</sub> )	841.05	mg/Nm <sup>3</sup>	1000
iii.	Oxides of Nitrogen (as NO <sub>x</sub> )	504.42	mg/Nm <sup>3</sup>	800



*Pankaj Baroi*

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Assam  
Pollution Control Board

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**STACK EMISSION TEST RESULTS**

01	Stack Emission Test Ref. No.	HCCL/SE/19-20/04-04		
02	Date of Sampling	18.04.2019		
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)	212		
07	Exit Velocity of Gas (m/sec)	12.6		
08	Flow Rate (Nm <sup>3</sup> /hr)	1,71,637		
09	Type of Fuel Used	NA*		
10	<b>Analysis Results of Flue Gas</b>			
<b>Sl. No.</b>	<b>Parameter(s)</b>	<b>Result(s)</b>	<b>Unit(s)</b>	<b>Limit(s)</b>
i.	PM- Particulate Matter	22.6	mg/Nm <sup>3</sup>	30

\*NA: Not Applicable



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**STACK EMISSION TEST RESULTS**

01	Stack Emission Test Ref. No.	HCCL/SE/19-20/04-05		
02	Date of Sampling	19.04.2019		
03	Material of Construction	M. S.		
04	Stack Attached To	Cement Mill		
05	Stack Diameter (Meter)	1.2		
06	Flue Gas Temperature (°C)	58		
07	Exit Velocity of Gas (m/sec)	10.4		
08	Flow Rate (Nm <sup>3</sup> /hr)	38,127		
09	Type of Fuel Used	NA*		
10	<b>Analysis Results of Flue Gas</b>			
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	PM- Particulate Matter	28.7	mg/Nm <sup>3</sup>	30

\*NA: Not Applicable



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**STACK EMISSION TEST RESULTS**

01	Stack Emission Test Ref. No.	HCCL/SE/19-20/04-06		
02	Date of Sampling	19.04.2019		
03	Material of Construction	M. S.		
04	Stack Attached To	Packing House		
05	Stack Diameter (Meter)	0.8		
06	Flue Gas Temperature (°C)	29		
07	Exit Velocity of Gas (m/sec)	9.6		
08	Flow Rate (Nm <sup>3</sup> /hr)	17,144		
09	Type of Fuel Used	NA*		
10	<b>Analysis Results of Flue Gas</b>			
<b>Sl. No.</b>	<b>Parameter(s)</b>	<b>Result(s)</b>	<b>Unit(s)</b>	<b>Limit(s)</b>
i.	PM- Particulate Matter	27.4	mg/Nm <sup>3</sup>	30

\*NA: Not Applicable



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Meghalaya

**WASTE WATER ANALYSIS RESULTS**

Sample Type : Treated ETP Water  
 Sample Source : ETP Outlet

Collected By: Jointly by Envirocon & Client  
 Collected On: 19.04.2019

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Desirable Limits (IS: 2490)
01	pH	--	6.8	5.5 – 9.0
02	Temperature	°C	27.1	shall not exceed 5°C above the receiving water temperature
03	Total Suspended Solids	mg/l	12.4	100
04	Biochemical Oxygen Demand (3 Days @27°C)	mg/l	19	30
05	Chemical Oxygen Demand	mg/l	61	250
06	Oil & Grease	mg/l	<0.1	10
07	Total Residual Chlorine	mg/l	<0.01	1.0
08	Ammonical Nitrogen (as N)	mg/l	12.6	50
09	Total Kjeldahl Nitrogen (as NH <sub>3</sub> )	mg/l	29.6	100
10	Free Ammonia (as NH <sub>3</sub> )	mg/l	<0.01	5.0

Analysis Protocol: IS 3025



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