

HCCL/MSPCB/24-25/003

Date: 24.06.2024

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

Subject: Monthly monitoring reports of Ambient Air Quality, Stack Emission, Waste Water Analysis (STP) & Noise Level Measurement for the month of **May, 2024**.

Dear Sir,

Please find enclosed herewith to this letter the reports for the month of **May, 2024** for the following test results:

Sr. No.	Environmental Monitoring	Parameters	Frequency
1	Ambient Air	PM-10, PM-2.5, SO ₂ & NO ₂	Monthly
2	Stack	PM, SO ₂ & NO ₂	Monthly
3	Fugitive Emission	SPM	Monthly
4	Noise	Leq in dB(A) Day & Night	Monthly
5	Waste water	As per CTO 10 parameters	Monthly
6	Surface water	25 Parameters	Monthly

Thanking you,
For Hills Cement Company Ltd.

Deepak Pande
Authorised Signatory



Copy To: - (1) The Joint Director (S), Ministry of Environment, Forest & Climate Change
NE Regional Office, Lumbatngan, Shillong 793021 for information.
(2) The Regional Director Regional Directorate (NE), Central Pollution
Control Board, TUM-SIR, Lower Motinagar, Near Fire Brigade HQ,
Shillong-793014.



HILLS CEMENT COMPANY LIMITED

CORPORATE OFFICE: "SHIVAM COMPLEX", Bharalumukh, A.T. Road, Guwahati, Assam, PIN-781009 | Ph.: (0361) 4083974 | E: hr@hccl.in | info@hccl.in
REGISTERED OFFICE & WORKS: Village Mynkree, 116KM Stone (NH44), Sub Div: Khliehriat, Dist: Jaintia Hills, Meghalaya, Pin-793200

Report No.: ENV/HCCL/24-25/AA-05/01
Date : 08/06/2024

Order No.: HCCL/WO/24-25/04/24
Date : 23/04/2024

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 (µg/m ³)	PM 10 (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
	LIMIT(S) →	---	60	100	80	80
01	Near Cement Mill	24.05.2024	26.3	49.2	7.3	7.6
02	Near Crusher Area	24.05.2024	27.7	51.3	7.1	7.9
03	Near View Point	23.05.2024	22.6	47.6	6.5	7.2
04	Worker Colony	23.05.2024	18.7	39.4	<5.0	<6.0
05	Mynkree Village	23.05.2024	17.9	37.5	<5.0	<6.0

Analysis Protocol: IS 5182



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/HCL/24-25/N-05/01
Date : 08/06/2024

Order No.: HCL/WO/24-25/04/24
Date : 23/04/2024

Report Issued To : **HILLS CEMENT COMPANY LIMITED**
Village: Mynkree, 116 KM Stone, NH-44, Sub Division: Khliehriat, Dist.: Jaintia Hills, Meghalaya

NOISE LEVEL MEASUREMENT RESULTS

Sl. No.	Location(s)	Date Of Measurement	Day Time		Night Time	
			L _{eq} (dB-A)	Limit (dB-A)	L _{eq} (dB-A)	Limit (dB-A)
1	Near Cement Mill	24.05.2024	69.7	75	64.8	70
2	Near Crusher Area	24.05.2024	70.3	75	65.2	70
3	Near View Point	23.05.2024	51.4	75	47.4	70
4	Worker Colony	23.05.2024	50.7	75	44.9	70
5	Mynkree Village	23.05.2024	45.1	70	37.3	55



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Report No.: ENV/HCCL/24-25/SE-05/03
Date : 08/06/2024

Order No.: HCCL/WO/24-25/04/24
Date : 23/04/2024

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/2024/SE-05/03		
02	Date of Sampling	23.05.2024		
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)	174		
07	Exit Velocity of Gas (m/sec)	13.2		
08	Flow Rate (Nm ³ /hr)	223962		
09	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	24	mg/Nm ³	30
ii.	Sulphur Dioxide (as SO ₂)	591	mg/Nm ³	1000
iii.	Oxides of Nitrogen (as NO _x)	326	mg/Nm ³	800

*NA: Not Applicable



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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.

Report No.: ENV/HCCL/24-25/SE-05/02
Date : 08/06/2024

Order No.: HCCL/WO/24-25/04/24
Date : 23/04/2024

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/2024/SE-05/02		
02	Date of Sampling	23.05.2024		
03	Material of Construction	M. S.		
04	Stack Attached To	Coal Mill		
05	Stack Diameter (Meter)	1.2		
06	Flue Gas Temperature (°C)	75		
07	Exit Velocity of Gas (m/sec)	19.3		
08	Flow Rate (Nm ³ /hr)	67299		
09	Type of Fuel Used	Coal		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	21	mg/Nm ³	30
ii.	Sulphur Dioxide (as SO ₂)	323	mg/Nm ³	1000
iii.	Oxides of Nitrogen (as NO _x)	181	mg/Nm ³	800



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Report No.: ENV/HCCL/24-25/SE-05/01
Date : 08/06/2024

Order No.: HCCL/WO/24-25/04/24
Date : 23/04/2024

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/2024/SE-05/01		
02	Date of Sampling	23.05.2024		
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)	252		
07	Exit Velocity of Gas (m/sec)	12.1		
08	Flow Rate (Nm ³ /hr)	152267		
09	Type of Fuel Used	NA*		
Analysis Results of Flue Gas				
Sl. No.	Parameter(s)	Result(s)	Unit(s)	Limit(s)
i.	Particulate Matter	25	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

*NA: Not Applicable

#BDL: Below Detectable Limit



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Date : 08/06/2024

Order No.: HCCL/WO/24-25/04/24
Date : 23/04/2024

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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/2024/SE-05/04		
02	Date of Sampling	24.05.2024		
03	Material of Construction	M. S.		
04	Stack Attached To	Cement Mill		
05	Stack Diameter (Meter)	1.2		
06	Flue Gas Temperature (°C)	79		
07	Exit Velocity of Gas (m/sec)	8.2		
08	Flow Rate (Nm ³ /hr)	28268		
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/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

*NA: Not Applicable

#BDL: Below Detectable Limit



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Report No.: ENV/HCCL/24-25/WW-05/01
Date : 08/06/2024

Order No.: HCCL/WO/24-25/04/24
Date : 23/04/2024

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/2024/WW-2405/01
Sample Type/Source : Waste Water (Treated)/STP Outlet
Sample Collected By : Representative of ENVIROCON
Sample Collected On : 24.05.2024
Sample Received On : 26.05.2024
Analysis Protocol : IS 3025

Sl. No.	Parameter(s)	Unit(s)	Result(s)	Limit (As Per CPCB Standards)
1.	pH	--	6.76	5.5 – 9.0
2.	Temperature	°C	23.6	shall not exceed 5°C above the receiving water temperature
3.	Total Suspended Solids	mg/l	38	100
4.	Biochemical Oxygen Demand	mg/l	23	30
5.	Chemical Oxygen Demand	mg/l	91	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	4.9	50
9.	Total Kjeldahl Nitrogen (as NH ₃)	mg/l	12.8	100
10.	Free Ammonia (as NH ₃)	mg/l	<0.01	5.0



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Report No.: ENV/HCCL/24-25/FE-05/01
Date : 08/06/2024

Order No.: HCCL/WO/24-25/04/24
Date : 23/04/2024

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

Date	Locations	Fugitive Emission Results for SPM ($\mu\text{g}/\text{m}^3$)	Limits ($\mu\text{g}/\text{m}^3$)
23.05.2024	Coal Storage Section	483	2000
23.05.2024	Lime Stone Storage Section	1539	5000
24.05.2024	Fly-ash Storage Section	1952	5000
24.05.2024	Cement Packing Section	2127	5000


Date:

Checked By: Mr. Pankaj Baroi, ENVIROCON

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Date : 08/06/2024

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Date : 23/04/2024

Report Issued To : **HILLS CEMENT COMPANY LIMITED**
Village: Mynkree, 116 KM Stone, NH-44, Sub Division: Khliehriat, Dist.: Jaintia Hills, Meghalaya

SURFACE WATER ANALYSIS RESULTS

Sample Ref. No. : HCCL/2024/SW-2405/01 Sample Source : Drain Upstream Sample Type : Surface Water
Collected On : 24-05-2024 Received On : 26-05-2024 Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* in the Absence of Alternate Source
1.	Colour, Hazen Units, Max.	12	5	15
2.	Odour	Agreeable	Agreeable	Agreeable
3.	Temperature	23.6	--	--
4.	pH Value	6.65	6.5 - 8.5	No Relaxation
5.	Suspended Solids	42	--	--
6.	Total Dissolved Solids, mg/l, Max.	137	500	2000
7.	Conductivity, μ S/cm	192	--	--
8.	Dissolved Oxygen, mg/l, Min.	6.6	--	--
9.	Biochemical Oxygen Demand, mg/l, Max.	<1	--	--
10.	Chemical Oxygen Demand, mg/l, Max.	29	--	--
11.	Oil and Grease, mg/l, Max.	Nil	--	--
12.	Residual Chlorine, mg/l, Min.	<0.01	0.2	1
13.	Total Hardness (as CaCO ₃), mg/l, Max.	8.9	200	600
14.	Calcium (as Ca), mg/l, Max.	18	75	200
15.	Magnesium (as Mg), mg/l, Max.	6	30	100
16.	Iron (as Fe), mg/l, Max.	<0.001	0.3	No Relaxation
17.	Total Chromium, (as Cr), mg/l, Max	<0.001	0.05	No Relaxation
18.	Ammonical Nitrogen (as N), mg/l, Max.	1.7	--	--
19.	Total Kjeldahl Nitrogen (as NH ₃), mg/l, Max.	5.6	--	--
20.	Free Ammonia (as NH ₃), mg/l, Max.	<0.01	--	--

*Limits as per IS 10500:2012

Analysis Protocol: IS 3025



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Report Issued To : **HILLS CEMENT COMPANY LIMITED**
Village: Mynkree, 116 KM Stone, NH-44, Sub Division: Khliehriat, Dist.: Jaintia Hills, Meghalaya

SURFACE WATER ANALYSIS RESULTS

Sample Ref. No. : HCCL/2024/SW-2405/02 Sample Source : Drain Downstream Sample Type : Surface Water
Collected On : 24-05-2024 Received On : 26-05-2024 Collected By : Envirocon Representative

Sl. No.	Parameters	Results	Acceptable Limit*	Permissible Limit* in the Absence of Alternate Source
1.	Colour, Hazen Units, Max.	16	5	15
2.	Odour	Agreeable	Agreeable	Agreeable
3.	Temperature	23.6	--	--
4.	pH Value	6.61	6.5 - 8.5	No Relaxation
5.	Suspended Solids	68	--	--
6.	Total Dissolved Solids, mg/l, Max.	167	500	2000
7.	Conductivity, $\mu\text{S}/\text{cm}$	198	--	--
8.	Dissolved Oxygen, mg/l, Min.	6.9	--	--
9.	Biochemical Oxygen Demand, mg/l, Max.	<1	--	--
10.	Chemical Oxygen Demand, mg/l, Max.	39	--	--
11.	Oil and Grease, mg/l, Max.	Nil	--	--
12.	Residual Chlorine, mg/l, Min.	<0.01	0.2	1
13.	Total Hardness (as CaCO_3), mg/l, Max.	8.9	200	600
14.	Calcium (as Ca), mg/l, Max.	23	75	200
15.	Magnesium (as Mg), mg/l, Max.	6	30	100
16.	Iron (as Fe), mg/l, Max.	<0.001	0.3	No Relaxation
17.	Total Chromium, (as Cr), mg/l, Max	<0.001	0.05	No Relaxation
18.	Ammonical Nitrogen (as N), mg/l, Max.	2.6	--	--
19.	Total Kjeldahl Nitrogen (as NH_3), mg/l, Max.	6.9	--	--
20.	Free Ammonia (as NH_3), mg/l, Max.	<0.01	--	--

*Limits as per IS 10500:2012

Analysis Protocol: IS 3025



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