

STAR CEMENT MEGHALAYA LIMITED

Ref: SCML/EHS/LUM/2022-23/23

Dated: 24/12/2022

To,

The Member Secretary
Meghalaya State Pollution Control Board
'ARDEN', Lumpyngngad,
Shillong, Meghalaya – 793014

Subject : Submission of Environmental Monitoring Report for the month of Nov, 2022.

Reference : MPCB/TB-115/2009/Pt-II/2021-2022/113, Dtd: Shillong, the 7th February, 2022.

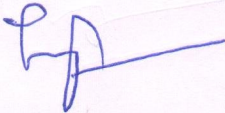
Dear Sir,

This is in reference to above cited subject, we are hereby submitting the monthly Environmental monitoring reports of Ambient Air Quality monitoring including meteorological data, Stack Emission, Fugitive Emission, Waste monitoring (Surface, STP, ETP) reports of **M/s Star Cement Meghalaya Limited** for the month of **Nov, 2022.**

This is for your kind information, record and kindly acknowledge receipt of the same.

Thanking You,

Yours truly,
For **STAR CEMENT MEGHALAYA LIMITED**



Laxmaiah Munjala
Unit Head

Enclosed: a/a

- Copy To:** 1) The Deputy Director General of Forest (Central), Ministry of Environment Forest & Climate Change, Govt. of India, Regional Office, Shillong, Meghalaya-793021.
2) The Regional Director, Central Pollution Control Board (CPCB), North Eastern Zonal Office, 'TUMSIR', Lower Motinagar, Shillong, Meghalaya-790314.

Regd. Office & Works: P.O. Lumshnong, East Jaintia Hills District, Meghalaya-793210, E-mail: ehslums@starcement.co.in

Corporate Office: Century House, 2nd Floor, P 15/1, Taratala Road, Kolkata-700088, e-mail: kolkata@starcement.co.in



AN ISO 9001, ISO 14001 & OHSAS 45001 CERTIFIED COMPANY

CIN : U63090ML2005PLC008011



STAR CEMENT MEGHALAYA LIMITED

Lumshnong, Meghalaya

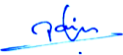
Date (DD-MM-YYYY)	Pressure (mmHg)	Relative Humidity (%)	Temp. (C)	Wind Direction (deg)	Wind Speed- (m/s)	Manual Rain (mm)
01-11-2022	958.24	70.24	23.3	347.05	3.22	0
02-11-2022	957.91	71.48	32.29	247.63	1.28	0
03-11-2022	959.47	82.07	35.06	249.74	0.71	0
04-11-2022	962.91	95.86	23.48	269.57	3.22	0
05-11-2022	963.23	96.89	23.71	202.09	1.07	0
06-11-2022	962.5	98.37	23.3	130.42	0.72	0
07-11-2022	963.22	67.35	32.29	172.25	0.93	0
08-11-2022	962.51	50.84	35.06	193.15	1.53	0
09-11-2022	961.8	49.95	35.07	178.3	1.91	0
10-11-2022	960.64	49.32	36.08	202.26	1.61	0
11-11-2022	959.5	48.69	35.68	131.51	1.68	0
12-11-2022	958.99	46.2	35.81	148.8	2.06	0
13-11-2022	958.89	69.95	30.57	319.17	2.58	0
14-11-2022	959.4	74.53	29.55	302.38	3.62	0
15-11-2022	962.5	49.32	23.48	154.44	1.28	0
16-11-2022	963.22	60.25	23.71	82.61	0.71	0
17-11-2022	959.5	48.69	35.68	131.51	1.68	0
18-11-2022	958.99	46.2	35.81	148.8	2.06	0
19-11-2022	958.89	69.95	30.57	319.17	2.58	0
20-11-2022	959.4	74.53	29.55	302.38	3.62	0
21-11-2022	962.5	49.32	23.48	154.44	1.28	0
22-11-2022	963.22	60.25	23.71	82.61	0.71	0
23-11-2022	958.24	70.24	23.3	347.05	3.22	0
24-11-2022	957.91	71.48	32.29	247.63	1.28	0
25-11-2022	959.47	82.07	35.06	249.74	0.71	0
26-11-2022	962.91	95.86	23.48	269.57	3.22	0
27-11-2022	963.23	96.89	23.71	202.09	1.07	0
28-11-2022	962.5	98.37	23.3	130.42	0.72	0
29-11-2022	962.5	49.32	23.48	154.44	1.28	0
30-11-2022	963.22	60.25	23.71	82.61	0.71	0
					Total rain of this month	0

	STAR CEMENT MEGHALAYA LIMITED Lumshnong, Meghalaya		Reference No.	SCML/Env/F – 01
			Issue No.	1
	AMBIENT AIR QUALITY MONITORING REPORT		Date of Issue:	24.08.2013
			Revision No.	5
		Date of Rev.	01.12.2020	
Reference No.: SCML/ENV/AAQM/MONTHLY/2022-23/08			Month: November'22	
Location of Sampling: Vishwakarma Colony		GPS Coordinate: 25°10'46"N 92°23'17"E 552 m		
Sampling Duration:	24 Hrs.	24 Hrs.	24 Hrs.	24 Hrs.
Date of Sampling	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
02.11.2022	44.09	27.48	11.41	13.58
05.11.2022	46.18	32.52	9.13	10.83
07.11.2022	45.80	28.44	11.38	15.93
10.11.2022	47.49	27.48	10.13	12.23
15.11.2022	45.37	30.90	12.45	13.96
17.11.2022	48.44	30.80	9.38	15.22
21.11.2022	48.80	29.15	8.23	12.92
23.11.2022	46.40	28.40	11.81	13.16
NAAQS permissible limits for Rural, Industrial, Residential Area	100 (µg/m ³)	60 (µg/m ³)	80 (µg/m ³)	80 (µg/m ³)
Remarks: All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009.				
 Analysed by	 Checked by		 Verified By	

	STAR CEMENT MEGHALAYA LIMITED Lumshnong, Meghalaya		Reference No.	SCML/Env/F – 01
			Issue No.	1
	AMBIENT AIR QUALITY MONITORING REPORT		Date of Issue:	24.08.2013
			Revision No.	5
		Date of Rev.	01.12.2020	
Reference No.: SCML/ENV/AAQM/MONTHLY/2022-23/08			Month: November'22	
Location of Sampling: Near Pump House		GPS Coordinate: 25°10'42"N 92°23'32"E 919 m		
Sampling Duration:	24 Hrs.	24 Hrs.	24 Hrs.	24 Hrs.
Date of Sampling	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
02.11.2022	47.05	31.07	8.83	13.63
05.11.2022	45.78	29.46	11.77	11.82
07.11.2022	46.17	30.82	9.33	13.10
10.11.2022	50.64	27.35	9.11	9.92
15.11.2022	45.80	26.44	8.38	12.85
17.11.2022	47.55	30.90	10.13	13.58
21.11.2022	48.00	29.31	7.65	10.08
23.11.2022	45.30	28.75	11.13	11.16
NAAQS permissible limits for Rural, Industrial, Residential Area	100 (µg/m ³)	60 (µg/m ³)	80 (µg/m ³)	80 (µg/m ³)
Remarks: All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009.				
 Analysed by	 Checked by		 Verified By	

	STAR CEMENT MEGHALAYA LIMITED Lumshnong, Meghalaya		Reference No.	SCML/Env/F – 01
			Issue No.	1
	AMBIENT AIR QUALITY MONITORING REPORT		Date of Issue:	24.08.2013
			Revision No.	5
		Date of Rev.	01.12.2020	
Reference No.: SCML/ENV/AAQM/MONTHLY/2022-23/08			Month: November'22	
Location of Sampling: Near STP		GPS Coordinate: 25°10'49"N 92°23'58"E 947 m		
Sampling Duration:	24 Hrs.	24 Hrs.	24 Hrs.	24 Hrs.
Date of Sampling	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
02.11.2022	44.19	24.90	14.78	15.22
05.11.2022	45.28	23.40	13.48	18.72
07.11.2022	44.26	26.90	11.38	16.58
10.11.2022	43.49	23.90	13.48	19.15
15.11.2022	42.80	26.35	14.13	16.08
17.11.2022	40.48	28.30	11.41	18.12
21.11.2022	40.80	28.90	12.13	20.26
23.11.2022	38.49	27.50	14.77	17.26
NAAQS permissible limits for Rural, Industrial, Residential Area	100 (µg/m ³)	60 (µg/m ³)	80 (µg/m ³)	80 (µg/m ³)
Remarks: All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009.				
 Analysed by		 Checked by		 Verified By

	STAR CEMENT MEGHALAYA LIMITED Lumshnong, Meghalaya				Reference No.	SCML/Env/F-02
					Issue No.	1
	STACK EMISSION MONITORING ANALYSIS REPORT				Date of Issue	01.05.2019
					Revision No.	5
					Date of Rev.	01.06.2021
Report No: SCML/ENV/STACK/MONTHLY/2022-23/08						Month: November'22
<u>Analysis Result</u>						
A. General Information About Stack						
1	Stack Identification No	S-1	S-2	S-3	S-4	S-5
2	Stack Connected to	LS Crusher	Add Crusher	Kiln/Raw Mill	Coal Mill	Cooler
3	Material of Construction (Stack/Duct)	Mild Steel	Mild Steel	Mild Steel	Mild Steel	Mild Steel
4	Shape of duct	Circular	Circular	Circular	Circular	Circular
5	Whether duct is provided with permanent platform & ladder	Yes	Yes	Yes	Yes	Yes
B. Physical characteristic of stack						
1	Stack Height from ground level (meter)	24.2	21.0	70.0	59.5	50.0
2	Duct diameter at sampling point (meter)	1.6	1.2	5.8	1.8	4.0
3	Sampling height point from ground level (meter)	-	-	23.15	10.38	-
4	Cross sectional area of Duct/Stack (m ²)	2.01	1.13	26.41	2.54	12.56
C. Pollution Control Device						
1	Details of pollution control device attached to stack	Bag Filter	Bag Filter	Reverse Air Bag House	Bag Filter	ESP
D. Result of Sampling & Analysis of Gaseous Emission						
1	Date of Sampling	09.11.2022	08.11.2022	04.11.2022	03.11.2022	01.11.2022
2	Ambient Temp (°C)	21	23	35	30	42
3	Stack Gas Temp (°C)	30	36	168	66	265
4	Exit Velocity of Gas (m/sec.)	12.01	12.13	9.35	7.34	9.80
5	Flow Rate (Nm ³ / sec.)	22.19	12.27	156.95	15.53	64.56
6	Quantity of Emission (Nm ³ / Hr)	79888.63	44171.96	565009.56	55899.49	232402.33
7	Concentration of PM (mg/Nm ³)	22.09	24.15	13.69	23.70	12.34
8	Concentration of SO ₂ (mg/Nm ³)	-	-	519.0	-	-
9	Concentration of NO _x (mg/Nm ³)	-	-	406.0	-	-
10	Oxygen (O ₂) (%)	9.4	9.8	10.4	9.7	9.6
E. Remarks						
Standard						
PM - 30 mg/Nm ³		SO ₂ - 1000 mg/Nm ³			NO _x - 800 mg/Nm ³	
<i>Particulate Matter (PM), Sulphur di-oxide (SO₂), Oxide of Nitrogen (Nox), Electro Static Precipitator (ESP), Limestone (LS), Additive (Add)</i>						
 Analysis by		 Checked by			 Authorized Signatory	

	STAR CEMENT MEGHALAYA LIMITED Lumshnong, Meghalaya		Document No.	SCML/EHS/Env/F-04
			Date of Issued	01-05-2019
			Revision No.	2
	FUGITIVE EMISSION MONITORING REPORT		Revision Date	01-01-2021
Ref: SCML/ENV/FUGITIVE/MONTHLY/2022-23/008				
Month - Novemeber 2022				
Date	Location	Fugitive Emission Results	As per CPCB/BIS Guideline	
		(in $\mu\text{g}/\text{m}^3$)	Limit (in $\mu\text{g}/\text{m}^3$)	
29.11.2022	Coal Storage Section	1487	2000	
29.11.2022	Limestone Storage Section	1864	5000	
29.11.2022	Clinker Loading Section	1353	2000	
 Analyzed By  Checked By  Verified By				

	STAR CEMENT MEGHALAYA LIMITED Lumshnong, Meghalaya				Reference No.	SCML/EHS/F-04
					Issue No.	1
	WATER TESTING REPORT				Date of Issue:	24.08.2013
					Revision No.	3
				Date of Rev.	01.06.2019	

Reference No.: SCML/ENV/WATER/MONTHLY/2022-23/08

Date of sample collection: - 09.11.2022
Date of Analysis: 09.11.2022 to 12.11.2022

Sl.No.	Parameter	Unit	STP Inlet	STP Outlet	Standard Norms For Discharge of Environment Pollution (Notification Date: - 19th May 1993) & Consent To Operate vide letter no. MPCB/TB-900 (Pt-II)/2014- 2015/34 - dated Shillong, the 3rd Sep,2014
1	pH	-	7.2	7.9	5.5 to 9.0
2	Colour	Hazen	Colourless	Colourless	-
3	Odour	-	Odourless	Odourless	-
4	Chloride	mg/L	38.0	41.0	-
5	Total Hardness as CaCO ₃	mg/L	83.0	86.0	-
6	Suspended Solids	mg/L	61.0	5.6	100
7	Total Dissolve Solids	mg/L	262.0	325.0	-
8	Chemical Oxygen Demand	mg/L	136.0	22.0	250
9	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	65.0	6.0	30
10	Oil & Grease	mg/L	9.0	< 3.0	10
11	Temperature	° C	25.0	25.0	Shall not exceed 5.0°C above the receiving water temperature
12	Conductivity	µS/cm	455.0	559.0	-


 Analysis By


 Checked By


 Verified By

	STAR CEMENT MEGHALAYA LIMITED Lumshnong, Meghalaya				Reference No.	SCML/EHS/F-04
					Issue No.	1
	WATER TESTING REPORT				Date of Issue:	24.08.2013
					Revision No.	3
				Date of Rev.	01.06.2019	

Reference No.: SCL/ENV/WATER/MONTHLY/2022-23/08

Date of sample collection: - 05.11.2022
Date of Analysis: 05.11.2022 to 08.11.2022

Sl.No.	Parameter	Unit	ETP Inlet	ETP Outlet	Standard Norms For Discharge of Environment Pollution (Notification Date: - 19th May 1993) & Consent To Operate vide letter no. MPCB/TB-900 (Pt-II)/2014- 2015/34 - dated Shillong, the 3rd Sep,2014
1	pH	-	6.8	7.4	5.5 to 9.0
2	Suspended Solids	mg/L	83	9.0	100
3	Total Dissolve Solids	mg/L	314	276	-
4	Chemical Oxygen Demand	mg/L	378	45.0	250
5	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	98.0	12.0	30
6	Oil & Grease	mg/L	105	< 3.0	10
7	Dissolved Oxygen	mg/L	4.8	5.3	-
8	Temperature	° C	25.0	25.0	Shall not exceed 5.0°C above the receiving water temperature


Analysis By


Checked By


Verified By



STAR CEMENT MEGHALAYA LIMITED
Lumshnong, Meghalaya

Reference No.	SCML/EHS/F-04
Issue No.	1
Date of Issue:	24.08.2013
Revision No.	3
Date of Rev.	01.06.2019

WATER TESTING REPORT

Reference No.: SCML/ENV/WATER/MONTHLY/2022-23/08

Surface Water Analysis Results
Month: November-2022

Date of sample collection: - 18.11.2022

Date of Analysis: 18.11.2022 to 21.11.2022

S.No.	Parameter	Unit	Umtyrngai Nallah		Umutha Nallah		Umso Nalah	Seshysmpa	Umbadoh	Tongseng	Lumshnong	Wahiajer	Standards norms as per IS 2296	
			Up Stream	Down Stream	Up Stream	Down Stream	Down Stream		Seasonal Spring / Seasonal Nallah					
1	pH	-	7.70	7.50	7.50	7.90	8.00	7.2	8.0	7.9	Water Source not found		6.5 - 8.5	
2	Colour	Hazen	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless			10	
3	Odour	-	Unobjectionable										Unobjectionable	
4	Chloride	mg/L	43.1	45.0	38.2	39.9	49.5	22.8	20.1	27.4			250	
5	Total Hardness as CaCO ₃	mg/L	66.4	70.3	73.6	75.4	78.9	42.6	71.6	40.3			300	
6	Suspended Solids	mg/L	10.0	12.0	13.5	16.0	17.1	5.6	6.0	3.4			-	
7	Total Dissolve Solids	mg/L	241	238	185	189	197	93.0	158.8	75.0			500	
8	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	ND	ND	ND	ND	ND	ND	ND	ND			2.0	
9	Oil & Grease	mg/L	ND	ND	ND	ND	ND	ND	ND	ND			-	
10	Temperature	° C	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0			-	
11	Conductivity	µS/cm	361.5	357.0	277.0	285.0	295.0	138.0	237.0	112.8			-	
12	Flow	L / Min	2074.0	2840.3	918.0	1921.0	3189.63	95045.50	-	-			-	

Analyzed by

Checked by

Verified by