

STAR CEMENT MEGHALAYA LIMITED

Regd. Office & Works : Lunshnong, PO-Khaliehriat, Distt.- East Jaintia Hills, Meghalaya-793210
Ph: 03655-278215/16/18, Fax: 03655-278217, e-mail: lunshnong@starcement.co.in

Ref: SCML/EHS/LUM/2022-23/18

Dated: 27/10/2022

To,

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

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

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

Dear Sir,

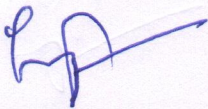
This is in reference to above cited subject, we are hereby submitting the monthly Environmental monitoring reports of Ambient Air Quality monitoring including meteorological data, Stack Emission, Fugitive Emission, Waste monitoring (Surface, STP, ETP) reports of **M/s Star Cement Meghalaya Limited**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

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

Thanking You,

Yours truly,

For **STAR CEMENT MEGHALAYA LIMITED**

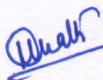


Laxmaiah Munjala
Unit Head

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.

STARCEMENT
Solid Setting



Corporate Office : Satyam Tower, 3 Alipore Road, 1st Floor, Unit No. 9B, Kolkata-700027
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CIN : U63090ML2005PLC008011



STAR CEMENT MEGHALAYA LIMITED

Lumshnong, Meghalaya

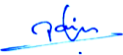
Date (DD-MM-YYYY)	Pressure (mmHg)	Relative Humidity (%)	Temp. (C)	Wind Direction (deg)	Wind Speed- (m/s)	Manual Rain (mm)
01-09-2022	958.04	80.09	27.78	180.42	1.53	2.6
02-09-2022	957.9	83.89	26.91	209.91	1.32	3.5
03-09-2022	958.14	89.78	25.6	220.21	1.06	60.2
04-09-2022	958.4	95.29	24.08	270.01	0.83	29.4
05-09-2022	958.91	96.41	23.98	308.46	1.01	18.0
06-09-2022	959.78	96.47	23.76	272.12	0.87	65.0
07-09-2022	960.4	97.86	23.6	283.88	0.7	30.0
08-09-2022	962.96	99.11	23.28	152.09	1.24	0.0
09-09-2022	963	99.19	23.34	150.25	0.77	0.0
10-09-2022	961.52	83.42	27.69	158.32	1.33	6.0
11-09-2022	960.52	74.81	29.34	133.39	1.81	14.0
12-09-2022	960.3	76.08	29.4	104.41	2.87	7.0
13-09-2022	961.3	96.91	23.47	317.25	0.77	15.0
14-09-2022	962.52	69.98	30.97	145.46	1.34	30.0
15-09-2022	961.99	61.42	33.5	154.44	0.68	28.0
16-09-2022	961.51	60.25	34.21	82.61	1.71	40.0
17-09-2022	958.24	70.24	29.31	347.05	5.13	0.0
18-09-2022	957.91	71.48	29.9	247.63	1.28	2.1
19-09-2022	959.47	82.07	27.26	249.74	0.71	26.6
20-09-2022	962.91	95.86	23.48	269.57	3.22	30.0
21-09-2022	963.23	96.89	23.71	202.09	1.07	33.0
22-09-2022	962.5	98.37	23.3	130.42	0.72	20.0
23-09-2022	963.22	67.35	32.29	172.25	0.93	6.0
24-09-2022	962.51	50.84	35.06	193.15	1.53	0.0
25-09-2022	961.8	49.95	35.07	178.3	1.91	0.0
26-09-2022	960.64	49.32	36.08	202.26	1.61	0.0
27-09-2022	959.5	48.69	35.68	131.51	1.68	0.0
28-09-2022	958.99	46.2	35.81	148.8	2.06	0.0
29-09-2022	958.89	69.95	30.57	319.17	2.58	0.0
30-09-2022	959.4	74.53	29.55	302.38	3.62	0.0
					Total rain of this month	466.4

	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/2022-23/12			Month: September'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)
01.09.2022	45.09	28.71	12.96	14.36
08.09.2022	47.18	33.75	10.68	11.61
10.09.2022	46.80	29.67	12.93	16.71
12.09.2022	48.49	28.71	11.68	13.01
17.09.2022	46.37	32.13	14.00	14.74
23.09.2022	49.44	32.03	10.93	16.00
26.09.2022	49.80	30.38	9.78	13.70
28.09.2022	47.40	29.63	13.36	13.94
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/2022-23/13			Month: September'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)
01.09.2022	48.05	32.30	10.38	14.41
08.09.2022	46.78	30.69	13.32	12.60
10.09.2022	47.17	32.05	10.88	13.88
12.09.2022	51.64	28.58	10.66	10.70
17.09.2022	46.80	27.67	9.93	13.63
23.09.2022	48.55	32.13	11.68	14.36
26.09.2022	49.00	30.54	9.20	10.86
28.09.2022	46.30	29.98	12.68	11.94
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/2022-23/14			Month: September'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)
01.09.2022	45.19	26.13	16.33	16.00
08.09.2022	46.28	24.63	15.03	19.50
10.09.2022	45.26	28.13	12.93	17.36
12.09.2022	44.49	25.13	15.03	19.93
17.09.2022	43.80	27.58	15.68	16.86
23.09.2022	41.48	29.53	12.96	18.90
26.09.2022	41.80	30.13	13.68	21.04
28.09.2022	39.49	28.73	16.32	18.04
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/2022-23/06					Month: September'22	
Analysis Result						
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	07.09.2022	07.09.2022	14.09.2022	05.09.2022	05.09.2022
2	Ambient Temp (°C)	25	28	33	35	40
3	Stack Gas Temp (°C)	35	42	153	89	380
4	Exit Velocity of Gas (m/sec.)	13.30	12.52	9.08	7.39	9.39
5	Flow Rate (Nm ³ / sec.)	24.18	12.42	157.74	14.62	50.96
6	Quantity of Emission (Nm ³ / Hr)	87051.33	44725.64	567852.99	52618.85	183456.43
7	Concentration of PM (mg/Nm ³)	25.10	20.45	14.05	23.03	16.98
8	Concentration of SO ₂ (mg/Nm ³)	-	-	478.1	-	-
9	Concentration of NO _x (mg/Nm ³)	-	-	628.5	-	-
10	Oxygen (O ₂) (%)	9.8	9.6	9.5	9.7	9.5
E. Remarks						
Standard						
PM - 30 mg/Nm ³		SO ₂ - 1000 mg/Nm ³		NO _x - 800 mg/Nm ³		
Particulate Matter (PM), Sulphur di-oxide (SO ₂), Oxide of Nitrogen (Nox), Electro Static Precipitator (ESP), Limestone (LS), Additive (Add)						
 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/2022-23/006				
Month - September 2022				
Date	Location	Fugitive Emission Results	As per CPCB/BIS Guideline	
		(in $\mu\text{g}/\text{m}^3$)	Limit (in $\mu\text{g}/\text{m}^3$)	
02.09.2022	Coal Storage Section	1358	2000	
02.09.2022	Limestone Storage Section	1347	5000	
02.09.2022	Clinker Loading Section	1427	2000	
 Analyzed By  Checked By  Verified By				

	STAR CEMENT MEGHALAYA LIMITED Lumshnong, Meghalaya				Document No.	SCML/EHS/Env/F-03			
					Effective Date	01-05-2019			
	NOISE LEVEL MONITORING REPORT				Revision No.	04			
					Revision Date	01-01-2021			
Ref: SCL(LM)/ENV/NOISE/MONTHLY/2022-23/002					Date: 06.09.2022				
Month - September 2022									
S. No.	Location	Measured Values dB(A) Day time (6:00am to 10:00pm)			Norms In dB(A)	Measured Values dB(A) Night time (10:00pm to 6:00am)			Norms in dB(A)
		Min.	Max.	Avg.		Min.	Max.	Avg.	
A. Plant									
1	Kiln	65.0	72.1	68.6	75	63.3	69.5	66.4	70
2	Vertical Raw Mill	66.2	72.7	69.4		61.6	67.6	64.6	
3	Raw Mill WF	62.1	73.7	67.9		63.3	68.3	65.8	
4	Coal Mill	65.5	72.4	69.0		61.3	67.4	64.4	
5	Limestone Crusher(Dump Hopper)	65.1	72.2	68.7		64.3	68.5	66.4	
6	Additive Crusher	65.4	73.7	69.5		59.3	69.2	64.3	
B.									
1	CCR	62.3	63.3	62.8		57.2	65.2	61.2	
2	Meeting Room	63.3	68.0	65.7		62.2	58.1	60.2	
3	VP'S Room	56.2	60.4	58.3		49.8	58.2	54.0	
4	Inst. Shift Room	58.5	69.2	63.9		54.7	57.7	56.2	
5	Electrical Office	64.6	70.4	67.5		50.0	62.2	56.1	
6	QC Department	58.2	63.9	61.1		52.6	56.0	54.3	
	a)Chemical Lab	64.3	65.6	65.0		52.4	56.4	54.4	
	b)Physical Lab	63.3	70.3	66.8	52.2	62.3	57.3		
	c)XRF Lab	64.8	68.0	66.4	49.8	55.6	52.7		
	d) Sample Preparation Room	62.2	64.8	63.5	52.4	58.4	55.4		
C. Residential					55				45
1	450 Quater's	46.3	50.6	48.5		38.6	40.6	39.6	
2	Worker's Colony	45.7	48.1	46.9		38.7	40.4	39.6	
 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/2022-23/06

Date of sample collection: - 27.09.2022
Date of Analysis: 27.09.2022 to 30.09.2022

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	-	7.5	7.9	5.5 to 9.0
2	Colour	Hazen	Colourless	Colourless	-
3	Odour	-	Odourless	Odourless	-
4	Chloride	mg/L	38.0	41.8	-
5	Total Hardness as CaCO ₃	mg/L	84.0	88.0	-
6	Suspended Solids	mg/L	65.0	4.5	100
7	Total Dissolve Solids	mg/L	295	288	-
8	Chemical Oxygen Demand	mg/L	158	28.0	250
9	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	67.0	5.9	30
10	Oil & Grease	mg/L	7.9	< 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	524.0	517	-


 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/2022-23/06

Date of sample collection: - 27.09.2022
Date of Analysis: 27.09.2022 to 30.09.2022

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	7.1	5.5 to 9.0
2	Suspended Solids	mg/L	81	9	100
3	Total Dissolve Solids	mg/L	345	255	-
4	Chemical Oxygen Demand	mg/L	325	40.0	250
5	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	91.0	9.0	30
6	Oil & Grease	mg/L	105	< 3.0	10
7	Dissolved Oxygen	mg/L	4.5	5.4	-
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/2022-23/06

Surface Water Analysis Results

Date of sample collection: - 05.09.2022

Month: September-2022

Date of Analysis: 05.09.2022 to 08.09.2022

S.No.	Parameter	Unit	Umtyrngai Nallah		Umutha Nallah		Umso	Lunar River	Lukha River	Lumshnong	Umbadoh	Tongseng	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	7.40	7.65	7.48	7.42	8.1	8.25	7.2	8.4	7.3	7.5	6.5 - 8.5
2	Colour	Hazen	Colourless	Colourless	Colourless	Colourless	Colourless	Slightly Yellowish	Colourless	Colourless	Colourless	Colourless	Colourless	10
3	Odour	-	Unobjectionable											Unobjectionable
4	Chloride	mg/L	42.5	46.5	35.5	37.2	55.6	21.3	39.0	21.8	17.7	28.4	24.8	250
5	Total Hardness as CaCO ₃	mg/L	70.0	78.0	74.0	80.0	83.0	38.0	34.0	27.0	80.0	36.0	52.0	300
6	Suspended Solids	mg/L	15.0	56.0	18.0	27.0	45.0	66.0	4.0	4.7	7.9	1.9	11.0	-
7	Total Dissolve Solids	mg/L	225	237	176	185	200	94.0	61.0	50.0	174.0	76.0	143.0	500
8	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	ND	ND	ND	ND	ND	1.5	ND	ND	ND	ND	ND	2.0
9	Oil & Grease	mg/L	ND	ND	ND	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	25.0	25.0	25.0	-
11	Conductivity	µS/cm	387.0	395.0	290.0	301.0	335.0	172.8	117.0	85.0	338.0	112.0	330.0	-
12	Flow	L / Min	25947.50	105276.70	24250.20	45371.60	66304.86	93279.90	79732.10	2262.95	-	-	-	-

Analyzed by

Checked by

Verified by