

STAR CEMENT MEGHALAYA LIMITED

Ref: SCML/EHS/LUM/2024-25/29

Dated: 04/09/2024

To,

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

Subject : Submission of Environmental Monitoring Report for the month of August, 2024.

Reference : MPCB/ONLINE/RCTO(R-I)/EJHD/2021/2024-2025/51-A, Dtd: Shillong, the 24th April, 2024.

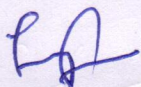
Dear Sir,

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 **Star Cement Meghalaya Limited** for the month of **August, 2024.**

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: The Regional Director, Central Pollution Control Board (CPCB), North Eastern Zonal Office, 'TUMSIR', Lower Motinagar, Shillong, Meghalaya-790314.



STAR CEMENT MEGHALAYA LIMITED

Lumshnong, Meghalaya

Date (DD-MM-YYYY)	Pressure (mmHg)	Relative Humidity (%)	Temp. (C)	Manual Rain (mm)
01-08-2024	719.0	72.4	19.2	11.8
02-08-2024	716.4	71.2	18.5	13.2
03-08-2024	716.1	72.0	19.4	0.0
04-08-2024	722.3	70.3	19.2	0.0
05-08-2024	719.6	70.1	19.1	0.0
06-08-2024	725.4	71.4	18.5	12.0
07-08-2024	720.0	70.2	20.0	27.0
08-08-2024	722.7	70.0	19.0	16.9
09-08-2024	724.3	70.2	19.0	10.6
10-08-2024	722.0	71.3	19.4	22.3
11-08-2024	720.0	74.5	19.5	37.0
12-08-2024	719.5	73.6	21.2	55.0
13-08-2024	719.9	77.8	19.3	6.2
14-08-2024	722.7	74.9	19.4	0.0
15-08-2024	722.9	75.1	20.3	5.4
16-08-2024	722.3	72.3	19.9	0.0
17-08-2024	720.7	78.6	17.1	6.2
18-08-2024	719.1	77.8	15.7	13.0
19-08-2024	716.7	70.8	17.4	8.0
20-08-2024	722.3	63.8	17.3	38.6
21-08-2024	722.8	66.8	18.8	20.0
22-08-2024	720.5	71.6	19.1	5.0
23-08-2024	722.7	71.1	19.2	10.0
24-08-2024	724.3	69.0	20.4	24.8
25-08-2024	722.7	71.7	19.2	0.0
26-08-2024	717.5	68.4	18.4	0.0
27-08-2024	724.2	71.3	18.9	0.0
28-08-2024	722.0	72.7	19.4	0.0
29-08-2024	720.8	74.8	16.1	0.0
30-08-2024	720.8	74.8	16.1	0.0
31-08-2024	722.7	71.7	19.2	7.8
			Total	350.8

	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/2024-25/17			Month : August	
Location of Sampling: Near Worker 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)
03.08.2024	41.52	29.89	16.27	20.24
14.08.2024	43.69	29.75	15.32	18.81
26.08.2024	39.49	28.43	16.30	19.74
Heavy Rainfall				
Heavy Rainfall	Rainfall Data Attached			
Heavy Rainfall				
Heavy Rainfall				
Heavy Rainfall				
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/2024-25/17			Month : August	
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)
03.08.2024	77.84	49.94	15.51	20.83
14.08.2024	72.49	50.82	15.86	19.09
26.08.2024	74.72	51.48	16.32	17.07
Heavy Rainfall				
Heavy Rainfall	Rainfall Data Attached			
Heavy Rainfall				
Heavy Rainfall				
Heavy Rainfall				
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/2024-25/17			Month : August	
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)
03.08.2024	41.83	31.57	16.00	21.75
14.08.2024	43.83	30.54	17.20	25.25
26.08.2024	45.15	32.87	14.52	17.88
Heavy Rainfall				
Heavy Rainfall	Rainfall Data Attached			
Heavy Rainfall				
Heavy Rainfall				
Heavy Rainfall				
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
			Date of Issue:	24.08.2013
	AMBIENT AIR QUALITY MONITORING REPORT		Revision No.	5
			Date of Rev.	01.12.2020
Reference No.: SCML/ENV/AAQM/MONTHLY/2024-25/17			Month : August	
Location of Sampling: Near Raw Mill Hopper		GPS Coordinate: 25°10'45"N 92°23'26.65"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)
03.08.2024	73.97	44.72	15.68	20.16
14.08.2024	77.24	45.91	15.74	18.32
26.08.2024	69.60	42.08	13.95	20.07
Heavy Rainfall				
Heavy Rainfall	Rainfall Data Attached			
Heavy Rainfall				
Heavy Rainfall				
Heavy Rainfall				
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
			Date of Issue:	24.08.2013
	AMBIENT AIR QUALITY MONITORING REPORT		Revision No.	5
			Date of Rev.	01.12.2020
Reference No.: SCML/ENV/AAQM/MONTHLY/2024-25/17			Month : August	
Location of Sampling: Near Water Reservoir		GPS Coordinate: 25°10'45"N 92°23'54"E 410 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)
03.08.2024	56.58	40.30	15.74	19.09
14.08.2024	63.85	42.16	15.80	17.25
26.08.2024	59.65	42.30	14.01	19.00
Heavy Rainfall				
Heavy Rainfall	Rainfall Data Attached			
Heavy Rainfall				
Heavy Rainfall				
Heavy Rainfall				
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/2024-25/17					Month: August	
<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	27.08.2024	27.08.2024	29.08.2024	28.08.2024	28.08.2024
2	Ambient Temp (°C)	23	22	24	26	35
3	Stack Gas Temp (°C)	27	16	133	69	123
4	Exit Velocity of Gas (m/sec.)	12.72	12.93	9.82	9.14	7.95
5	Flow Rate (Nm ³ / sec.)	24.20	14.07	179.15	19.25	71.30
6	Quantity of Emission (Nm ³ / Hr)	87111.33	50644.92	644933.58	69310.62	256663.47
7	Concentration of PM (mg/Nm ³)	19.5	15.9	17.3	21.3	18.9
8	Concentration of SO ₂ (mg/Nm ³)	-	-	537	-	-
9	Concentration of NO _x (mg/Nm ³)	-	-	385	-	-
10	Oxygen (O ₂) (%)	9.6	10.0	8.4	10.3	8.8
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/2024-25/17				
Month - August				
Date	Location	Fugitive Emission Results	As per CPCB/BIS Guideline	
			Limit	
		(in $\mu\text{g}/\text{m}^3$)	(in $\mu\text{g}/\text{m}^3$)	
16.08.2024	Coal Storage Section	1308	2000	
16.08.2024	Limestone Storage Section	1453	5000	
16.08.2024	Clinker Loading Section	1780	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: SCML/ENV/NOISE/MONTHLY/2024-25/017					Date:		16.08.2024		
Month - August									
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				75				70
1	Kiln	60.6	67.7	64.2		56.4	58.1	57.3	
2	Vertical Raw Mill	62.2	68.8	65.5		54.7	60.7	57.7	
3	Raw Mill WF	58.2	69.8	64.0		56.4	59.0	57.7	
4	Coal Mill	61.6	68.5	65.1		54.4	60.5	57.5	
5	Limestone Crusher(Dump Hopper)	61.2	68.3	64.8		57.4	57.9	57.7	
6	Additive Crusher	61.5	69.8	65.6		52.4	59.9	56.2	
B.									
1	CCR	58.4	59.4	58.9		50.3	58.3	54.3	
2	Meeting Room	57.9	64.1	61.0		50.7	51.2	51.0	
3	VP'S Room	52.3	56.5	54.4		42.9	51.3	47.1	
4	Inst. Shift Room	54.6	65.3	60.0		47.8	50.8	49.3	
5	Electrical Office	60.7	66.5	63.6		43.1	55.3	49.2	
6	QC Department								
	a)Chemical Lab	62.5	61.7	62.1		45.5	49.5	47.5	
	b)Physical Lab	59.4	66.4	62.9		45.3	55.4	50.4	
	c)XRF Lab	60.9	64.1	62.5		42.9	48.7	45.8	
	d) Sample Preparation Room	58.3	60.9	59.6		45.5	51.5	48.5	
C.	Residential				55				45
1	450 Quater's	42.4	46.7	44.6		34.6	33.7	34.2	
2	Worker's Colony	41.8	44.2	43.0	33.8	33.5	33.7		
 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/2024-25/16					Date of sample collection: 26.07.2024 Date of Analysis: 26.07.2024 to 30.07.2024	
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	-	7.1	7.4	5.5 to 9.0	
2	Suspended Solids	mg/L	89	35	100	
3	Total Dissolve Solids	mg/L	421	312	-	
4	Chemical Oxygen Demand	mg/L	433	46	250	
5	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	94	25	30	
6	Oil & Grease	mg/L	6.4	< 3.0	10	
7	Dissolved Oxygen	mg/L	6.1	5.1	-	
8	Temperature	° C	32	27	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
	WATER TESTING REPORT				Date of Issue:	24.08.2013
					Revision No.	3
				Date of Rev.	01.06.2019	
Reference No.: SCML/ENV/WATER/MONTHLY/2024-25/17					Date of sample collection: 27.08.2024	
					Date of Analysis: 27.08.2024 to 30.08.2024	
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	7.5	5.5 to 9.0	
2	Colour	Hazen	Yellowish	Colourless	-	
3	Odour	-	Odourless	Odourless	-	
4	Chloride	mg/L	87.0	76.6	-	
5	Total Hardness as CaCO ₃	mg/L	61.1	62.6	-	
6	Suspended Solids	mg/L	85	49.2	100	
7	Total Dissolve Solids	mg/L	319	321	-	
8	Chemical Oxygen Demand	mg/L	229	54	250	
9	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	85	19.5	30	
10	Oil & Grease	mg/L	8.6	< 3.0	10	
11	Temperature	° C	31	32	Shall not exceed 5.0°C above the receiving water temperature	
12	Conductivity	µS/cm	531	517	-	
 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	
	WATER TESTING REPORT												Revision No.	3	
Date of Rev.													01.06.2019		
Reference No.: SCML/ENV/WATER/MONTHLY/2024-25/17												Date of sample collection: 27.08.2024			
Surface Water Analysis Results												Date of Analysis: 27.08.2024 to 30.08.2024			
S.No.	Parameter	Unit	Umtyrngai Nallah		Umutha Nallah		Umso Nalah	Seshympa	Lunar	Lukha	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	-	7.3	7.1	8.1	7.5	7.7	-	-	-	7.2	7.4	8.6	7.9	6.5 - 8.5
2	Colour	Hazen	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	Yellowish	Colourless	Yellowish	Yellowish	Yellowish	Yellowish	10
3	Odour	-	Unobjectionable												
4	Chloride	mg/L	31.1	36.4	32.5	29.5	32.1	-	-	-	24.5	22.8	26.0	25.5	250
5	Total Hardness as CaCO ₃	mg/L	55.0	66.0	78.8	71.5	73.5	-	-	-	64.1	49.5	47.2	41.7	300
6	Suspended Solids	mg/L	46.1	48.2	51.0	38.5	47.2	-	-	-	42.5	54.5	38.7	38.0	-
7	Total Dissolve Solids	mg/L	217.2	202.2	226.1	288.0	355.8	-	-	-	80.7	66.6	66.0	214.9	500
8	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	ND	ND	ND	ND	ND	-	-	-	ND	ND	ND	ND	2.0
9	Oil & Grease	mg/L	ND	ND	ND	ND	ND	-	-	-	ND	ND	ND	ND	-
10	Temperature	° C	25.5	24.7	26.6	23.0	27.7	-	-	-	25.0	25.1	29.0	31.0	-
11	Conductivity	µS/cm	184.8	219.3	314.9	428.2	345.9	-	-	-	156.3	134.2	107.1	455.7	-
12	Flow	L / Min	1302.2	1819.5	246.8	507.9	2347.8	-	-	-	1675.3	1089.5	1496.0	1402.0	
Analized by Checked by Verified by															