

STAR CEMENT MEGHALAYA LIMITED

Ref: SCML/EHS/LUM/2023-24/14

Dated: 14/09/2023

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, 2023.

Reference : MPCB/TB-115/2009/Pt-II/2022-2023/119, Dtd: Shillong, the 23rd February, 2023.

Dear Sir,

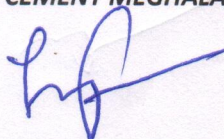
This is in reference to above cited subject, we are hereby submitting the monthly Environmental monitoring reports of Ambient Air Quality monitoring including meteorological data, Stack Emission, Fugitive Emission, Waste monitoring (Surface, STP, ETP) reports of **Star Cement Meghalaya Limited** for the month of **August, 2023**.

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)
01-08-2023	764.9	68.7	30.4	0.0
02-08-2023	762.5	75.9	28.6	3.0
03-08-2023	763.4	76.0	23.0	14.5
04-08-2023	761.8	85.2	22.0	78.8
05-08-2023	763.7	83.1	27.3	23.0
06-08-2023	760.2	89.0	22.0	98.0
07-08-2023	762.8	85.0	22.5	45.0
08-08-2023	763.8	84.0	22.0	62.0
09-08-2023	761.7	80.4	22.4	59.5
10-08-2023	761.4	87.6	22.0	101.9
11-08-2023	762.0	90.1	21.0	192.7
12-08-2023	763.8	89.7	21.0	153.0
13-08-2023	761.7	75.6	26.4	18.8
14-08-2023	760.0	70.9	26.7	19.8
15-08-2023	761.4	62.7	27.9	1.1
16-08-2023	763.5	60.4	28.4	4.2
17-08-2023	760.2	59.0	28.6	9.6
18-08-2023	762.9	60.0	29.0	0.0
19-08-2023	761.0	76.9	27.8	36.2
20-08-2023	762.0	67.8	28.4	4.6
21-08-2023	765.0	78.6	27.9	32.2
22-08-2023	761.0	75.1	28.4	23.2
23-08-2023	763.4	79.6	27.1	42.2
24-08-2023	761.0	78.0	27.6	44.2
25-08-2023	762.8	72.6	26.4	28.2
26-08-2023	761.4	90.0	25.6	125.8
27-08-2023	761.6	85.7	25.0	114.4
28-08-2023	762.9	79.5	26.7	77.8
29-08-2023	763.5	68.0	27.6	0.0
30-08-2023	761.4	62.0	29.7	0.0
31-08-2023	762.8	63.7	29.7	0.0
			Total	1413.7

	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/2023-24/05			Month: August	
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)
01.08.2023	21.70	15.45	14.17	16.90
03.08.2023	23.87	15.31	13.22	15.47
14.08.2023	19.67	13.99	14.20	16.40
16.08.2023	26.00	13.45	13.40	15.77
18.08.2023	24.70	12.31	13.18	13.60
30.08.2023	22.56	15.15	12.13	15.57
No Monitoring Due to Heavy Rain fall				
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/2023-24/05			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)
01.08.2023	56.41	32.66	14.84	18.06
03.08.2023	51.06	33.54	15.86	19.09
14.08.2023	53.29	34.20	16.32	17.07
16.08.2023	57.28	32.53	15.77	16.00
18.08.2023	54.61	30.36	14.29	15.25
30.08.2023	56.11	32.73	12.61	16.11
No Monitoring Due to Heavy Rain fall				
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/2023-24/05			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)
01.08.2023	22.01	17.13	13.90	18.41
03.08.2023	24.01	16.10	15.10	21.91
14.08.2023	25.33	18.43	12.42	14.64
16.08.2023	29.68	19.59	13.04	16.54
18.08.2023	27.30	17.95	13.72	18.41
30.08.2023	25.00	16.41	14.44	16.20
No Monitoring Due to Heavy Rain fall				
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/2023-24/05					Month: August'23	
<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	01.08.2023	01.08.2023	02.08.2023	02.08.2023	02.08.2023
2	Ambient Temp (°C)	23	27	43	30	32
3	Stack Gas Temp (°C)	28	35	150	72	115
4	Exit Velocity of Gas (m/sec.)	11.97	12.61	8.69	13.54	9.03
5	Flow Rate (Nm ³ / sec.)	22.43	12.80	152.14	29.32	82.64
6	Quantity of Emission (Nm ³ / Hr)	80732.36	46071.86	547693.10	105566.53	297511.37
7	Concentration of PM (mg/Nm ³)	15.14	18.19	12.90	23.80	13.03
8	Concentration of SO ₂ (mg/Nm ³)	-	-	203	-	-
9	Concentration of NOx (mg/Nm ³)	-	-	69	-	-
10	Oxygen (O ₂) (%)	9.0	9.5	10.5	10.0	9.5
E.	Remarks					
Standard						
PM - 30 mg/Nm ³		SO ₂ - 1000 mg/Nm ³		NOx - 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/2023-24/05				
Month - August				
Date	Location	Fugitive Emission Results	As per CPCB/BIS Guideline	
			Limit	
		(in $\mu\text{g}/\text{m}^3$)	(in $\mu\text{g}/\text{m}^3$)	
05.08.2023	Coal Storage Section	1076	2000	
05.08.2023	Limestone Storage Section	1162	5000	
05.08.2023	Clinker Loading Section	1472	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/2023-24/05

Date of sample collection: 11.08.2023
 Date of Analysis: 11.08.2023 to 14.08.2023

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	-	7.3	7.5	5.5 to 9.0
2	Colour	Hazen	Colourless	Colourless	-
3	Odour	-	Odourless	Odourless	-
4	Chloride	mg/L	80.1	82.9	-
5	Total Hardness as CaCO ₃	mg/L	49.6	52.0	-
6	Suspended Solids	mg/L	76	18	100
7	Total Dissolve Solids	mg/L	313	322	-
8	Chemical Oxygen Demand	mg/L	131	32	250
9	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	42	12	30
10	Oil & Grease	mg/L	8.5	< 3.0	10
11	Temperature	° C	25	25	Shall not exceed 5.0°C above the receiving water temperature
12	Conductivity	µS/cm	483	492	-



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/2023-24/05

Date of sample collection: 11.08.2023

Date of Analysis: 11.08.2023 to 14.08.2023

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	-	7.3	7.6	5.5 to 9.0
2	Suspended Solids	mg/L	95	42	100
3	Total Dissolve Solids	mg/L	428	317	-
4	Chemical Oxygen Demand	mg/L	312	44	250
5	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	83	24	30
6	Oil & Grease	mg/L	102	< 3.0	10
7	Dissolved Oxygen	mg/L	5.5	5.5	-
8	Temperature	° C	25	25	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/2023-24/05

Surface Water Analysis Results

Date of sample collection:11.08.2023

Date of Analysis: 11.08.2023 to 14.08.2023

S.No.	Parameter	Unit	Umtyrngai Nallah		Umutha Nallah		Umso Nalah	Lunar	Lukha	Seshympa	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	-	7.4	7.6	7.3	8.0	8.0	7.0	6.9	7.3	8.0	7.4	7.0	7.4	6.5 - 8.5
2	Colour	Hazen	Colourless	Colourless	Colourless	Colourless	Colourless	Slightly Yellowish	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	10
3	Odour	-	Unobjectionable												Unobjectionable
4	Chloride	mg/L	17.7	21.3	19.5	19.9	23.0	42.0	14.7	20.2	28.4	19.3	21.3	21.6	250
5	Total Hardness as CaCO ₃	mg/L	40.0	62.0	70.0	76.0	78.0	103.0	20.0	40.0	14.0	16.0	24.0	38.0	300
6	Suspended Solids	mg/L	4.1	15.2	10.9	42.0	48.1	62.4	7.0	10.0	6.0	6.0	8.6	8.3	-
7	Total Dissolve Solids	mg/L	268.4	275.8	225.9	285.0	301.0	215.0	60.0	95.0	167.0	20.0	30.0	172.0	500
8	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	ND	ND	ND	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	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	25.0	-
11	Conductivity	µS/cm	428.6	443.7	367.9	461.0	482.0	341.0	95.0	153.0	275.0	35.7	49.3	281.0	-
12	Flow	L / Min	212562.2	531747.6	172808.0	545275.0	1116900.0	5221550.0	4985080.0	4941900.0	-	-	3586.9	-	-


Analyzed by


Checked by


Verified by