

STAR CEMENT MEGHALAYA LIMITED

Ref: SCML/EHS/LUM/2023-24/05

Dated: 23/05/2023

To,

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

Subject : Submission of Environmental Monitoring Report for the month of April, 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 **M/s Star Cement Meghalaya Limited** for the month of **April, 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:** 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.



STAR CEMENT MEGHALAYA LIMITED

Lumshnong, Meghalaya

Date (DD-MM-YYYY)	Pressure (mmHg)	Relative Humidity (%)	Temp. (C)	Manual Rain (mm)
01-04-2023	762	85.6	19.4	24.4
02-04-2023	760.1	80.3	18.9	16.2
03-04-2023	763.2	79.0	20.1	29.6
04-04-2023	762.5	75.0	20.4	2.8
05-04-2023	762.2	79.8	19.4	112.8
06-04-2023	762	50.6	30.8	0
07-04-2023	761	56.1	32.4	0
08-04-2023	762.9	64.2	35.0	0
09-04-2023	760	54.3	32.5	0
10-04-2023	760	69.2	31.8	0
11-04-2023	762	61.4	30.2	0
12-04-2023	761	54.6	33.5	0
13-04-2023	761	55.5	33.2	0
14-04-2023	760.9	51.2	30.4	0
15-04-2023	762.5	53.9	34.8	0
16-04-2023	762.2	52.6	30.5	0
17-04-2023	763	50.6	32.5	0
18-04-2023	761	68.6	25.0	2.8
19-04-2023	760	65.9	20.0	1.8
20-04-2023	762.5	79.4	18.0	33.8
21-04-2023	762.5	85.6	17.6	51.6
22-04-2023	762.2	72.9	17.2	4.6
23-04-2023	761	83.6	22.0	26
24-04-2023	761.5	50.3	30.0	0
25-04-2023	760.9	54.6	32.4	0
26-04-2023	762.5	53.9	32.0	0
27-04-2023	762.2	84.4	17.2	13.2
28-04-2023	762.5	55.6	30.0	0
29-04-2023	761.4	78.6	18.9	7.2
30-04-2023	763	51.9	24.9	0
			Total	326.8

	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/2023-24/01			Month: April	
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)
04.04.2023	41.98	26.94	14.94	18.27
06.04.2023	44.15	26.80	13.99	16.84
08.04.2023	39.95	25.48	14.97	17.77
10.04.2023	46.28	24.94	14.17	17.14
12.04.2023	44.98	23.80	13.95	14.97
14.04.2023	42.84	26.64	12.90	16.94
17.04.2023	41.97	25.75	12.58	16.16
19.04.2023	44.98	25.45	12.98	15.77
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/2023-24/01			Month: April	
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)
04.04.2023	73.74	44.00	19.48	26.01
06.04.2023	68.39	44.88	20.50	27.04
08.04.2023	70.62	45.54	20.96	25.02
10.04.2023	74.61	43.87	20.41	23.95
12.04.2023	71.94	41.70	18.93	23.20
14.04.2023	73.44	44.07	17.25	24.06
17.04.2023	75.19	45.45	19.41	24.04
19.04.2023	71.30	42.74	18.50	21.95
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/2023-24/01			Month: April	
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)
04.04.2023	32.15	25.17	14.65	18.14
06.04.2023	34.15	24.14	15.85	21.64
08.04.2023	35.47	26.47	13.17	14.37
10.04.2023	39.82	27.63	13.79	16.27
12.04.2023	37.44	25.99	14.47	18.14
14.04.2023	35.14	24.45	15.19	15.93
17.04.2023	39.37	21.98	14.47	17.17
19.04.2023	37.66	20.15	13.52	15.18
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	
Report No: SCML/ENV/STACK/MONTHLY/2023-24/01					Date of Rev.		01.06.2021
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	14.04.2023	19.04.2023	08.04.2023	19.04.2023	08.04.2023	
2	Ambient Temp (°C)	25	27	37	38	44	
3	Stack Gas Temp (°C)	38	40	156	79	200	
4	Exit Velocity of Gas (m/sec.)	14.48	13.65	8.75	13.42	9.69	
5	Flow Rate (Nm ³ / sec.)	26.25	13.63	151.04	27.35	72.81	
6	Quantity of Emission (Nm ³ / Hr)	94511.19	49077.02	543748.26	98453.17	262098.66	
7	Concentration of PM (mg/Nm ³)	18.60	18.88	18.73	27.41	16.60	
8	Concentration of SO ₂ (mg/Nm ³)	-	-	542	-	-	
9	Concentration of NO _x (mg/Nm ³)	-	-	418	-	-	
10	Oxygen (O ₂) (%)	9.0	9.5	9.8	11.0	8.0	
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/2023-24/01				
Month - April 2023				
Date	Location	Fugitive Emission Results	As per CPCB/BIS Guideline	
			Limit	
		(in $\mu\text{g}/\text{m}^3$)	(in $\mu\text{g}/\text{m}^3$)	
28.04.2023	Coal Storage Section	1479	2000	
28.04.2023	Limestone Storage Section	2006	5000	
28.04.2023	Clinker Loading Section	1446	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/2023-24/01					Date of sample collection: 17.04.2023	
					Date of Analysis: 17.04.2023 to 20.04.2023	
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	-	7.4	7.8	5.5 to 9.0	
2	Colour	Hazen	Colourless	Colourless	-	
3	Odour	-	Odourless	Odourless	-	
4	Chloride	mg/L	52	46	-	
5	Total Hardness as CaCO ₃	mg/L	44	52	-	
6	Suspended Solids	mg/L	75	12	100	
7	Total Dissolve Solids	mg/L	315	358	-	
8	Chemical Oxygen Demand	mg/L	110	28	250	
9	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	45	10	30	
10	Oil & Grease	mg/L	9.0	< 3.0	10	
11	Temperature	° C	25	25	Shall not exceed 5.0°C above the receiving water temperature	
12	Conductivity	µS/cm	504	573	-	
 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/2023-24/01						Date of sample collection: 17.04.2023 Date of Analysis: 17.04.2023 to 20.04.2023
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	-	7.6	7.9	5.5 to 9.0	
2	Suspended Solids	mg/L	85	29	100	
3	Total Dissolve Solids	mg/L	367	297	-	
4	Chemical Oxygen Demand	mg/L	310	47	250	
5	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	80	16	30	
6	Oil & Grease	mg/L	103	< 3.0	10	
7	Dissolved Oxygen	mg/L	5.0	5.0	-	
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
												Date of Issue:	24.08.2013
												Revision No.	3
WATER TESTING REPORT											Date of Rev.	01.06.2019	
Reference No.: SCML/ENV/WATER/MONTHLY/2023-24/01 Surface Water Analysis Results Date of sample collection: 08.04.2023 Date of Analysis: 08.04.2023 to 11.04.2023													
S.No.	Parameter	Unit	Umtyrngai Nallah		Umutha Nallah		Umso Nalah	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	-	7.5	7.9	7.8	8.0	8.3	7.2	7.3	7.5	7.7	8.6	6.5 - 8.5
2	Colour	Hazen	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	10
3	Odour	-	Unobjectionable										Unobjectionable
4	Chloride	mg/L	25	32	21.3	27.6	47.9	17.7	39.0	19.5	26.1	27.0	250
5	Total Hardness as CaCO ₃	mg/L	38	62	79.0	82.0	86.0	38.0	24.0	10.0	12.5	47.0	300
6	Suspended Solids	mg/L	1.0	6.8	1.2	15.2	8.0	6.7	4.2	3.2	2.0	9.7	-
7	Total Dissolve Solids	mg/L	240	276	239	298	367	84.6	220	10.4	59.2	125.0	500
8	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	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	-
10	Temperature	° C	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	-
11	Conductivity	µS/cm	416.0	479.0	434.0	528.0	639	153	430	19.6	119.0	306.0	-
12	Flow	L / Min	2828.9	4204.6	1457.9	1968.7	7589.3	317815.0	-	-	396.19	-	-
 Analyzed by  Checked by  Verified by													