

STAR CEMENT MEGHALAYA LIMITED

Ref: SCML/EHS/LUM/2024-25/49

Dated: 13/01/2025

To,

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

Subject : Submission of Environmental Monitoring Report for the month of December, 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 **December, 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 Solid Setting STAR CEMENT MEGHALAYA LIMITED Lumshnong, Meghalaya				
Date (DD-MM-YYYY)	Pressure (mmHg)	Relative Humidity (%)	Temp. (C)	Manual Rain (mm)
01-12-2024	720.9	72.3	22.6	0.0
02-12-2024	718.3	71.1	21.4	0.0
03-12-2024	718.0	71.9	21.2	0.0
04-12-2024	724.2	70.2	22.1	0.0
05-12-2024	721.5	70.0	21.5	0.0
06-12-2024	727.3	71.3	21.4	0.0
07-12-2024	721.9	70.1	21.5	0.0
08-12-2024	723.7	69.9	21.7	0.0
09-12-2024	725.3	70.1	21.9	0.0
10-12-2024	723.0	71.2	22.3	0.0
11-12-2024	721.0	74.4	22.0	0.0
12-12-2024	720.5	73.5	23.9	0.0
13-12-2024	720.9	73.0	22.0	0.0
14-12-2024	723.7	74.8	22.1	0.0
15-12-2024	723.9	75.0	23.0	0.0
16-12-2024	723.3	72.2	22.6	0.0
17-12-2024	723.2	73.3	19.5	0.0
18-12-2024	721.6	74.6	22.1	0.0
19-12-2024	719.2	70.7	19.8	0.0
20-12-2024	724.8	67.7	19.7	0.0
21-12-2024	725.3	66.7	21.2	0.0
22-12-2024	723.0	71.5	21.5	0.0
23-12-2024	725.2	71.0	21.6	0.0
24-12-2024	726.8	68.9	22.8	0.0
25-12-2024	725.2	71.6	21.9	0.0
26-12-2024	720.0	68.3	21.1	0.0
27-12-2024	726.4	71.2	21.6	0.0
28-12-2024	724.2	72.6	21.0	0.0
29-12-2024	723.0	72.2	20.7	0.0
30-12-2024	721.6	73.2	21.8	0.0
31-12-2024	729.1	70.5	22.1	0.0
			Total	0.0

	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/2024-25/21			Month : December	
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)
02.12.2024	34.80	28.85	18.85	22.17
06.12.2024	35.73	28.71	17.90	19.74
09.12.2024	36.42	27.39	18.88	20.88
13.12.2024	34.70	26.85	18.08	21.91
17.12.2024	33.40	25.76	17.86	20.00
20.12.2024	33.35	28.60	16.81	18.00
23.12.2024	38.85	27.71	16.49	19.26
27.12.2024	41.24	27.41	16.89	17.82
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/2024-25/21			Month : December	
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)
02.12.2024	64.51	44.59	18.45	24.26
06.12.2024	65.52	45.47	19.07	21.76
09.12.2024	65.27	46.13	19.53	19.27
13.12.2024	64.49	44.46	19.80	20.03
17.12.2024	68.16	42.29	19.19	17.96
20.12.2024	72.81	44.66	18.46	18.94
23.12.2024	65.82	49.05	20.32	18.66
27.12.2024	68.06	46.34	19.19	19.18
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 – 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/2024-25/21			Month : December	
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)
02.12.2024	39.60	34.98	16.47	17.82
06.12.2024	40.48	36.98	17.85	19.02
09.12.2024	38.52	38.30	20.19	16.34
13.12.2024	40.49	33.56	18.87	16.96
17.12.2024	41.53	35.57	20.08	17.64
20.12.2024	35.49	31.12	17.77	18.36
23.12.2024	44.48	33.59	15.67	17.64
27.12.2024	41.48	35.02	18.54	16.13
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/2024-25/21			Month : December	
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)
02.12.2024	64.72	42.87	16.25	18.38
06.12.2024	67.99	44.06	16.31	19.30
09.12.2024	60.35	40.23	15.40	18.80
13.12.2024	59.21	46.46	15.19	19.67
17.12.2024	65.55	42.76	16.37	21.07
20.12.2024	65.57	46.05	14.34	18.57
23.12.2024	68.21	48.13	15.10	15.89
27.12.2024	66.84	44.92	17.47	20.30
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/2024-25/21			Month : December	
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)
02.12.2024	47.21	38.83	17.10	22.05
06.12.2024	49.61	40.69	17.16	20.21
09.12.2024	42.27	40.83	15.37	21.96
13.12.2024	46.78	38.83	15.16	20.58
17.12.2024	48.77	39.43	16.34	21.98
20.12.2024	46.63	42.27	15.19	19.48
23.12.2024	50.79	41.38	15.95	20.98
27.12.2024	48.75	39.93	16.50	19.23
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/2024-25/21				Month: December		
<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	17-12-2024	26-12-2024	30-12-2024	19-12-2024	23-12-2024
2	Ambient Temp (°C)	23	22	24	26	35
3	Stack Gas Temp (°C)	27	28	132	64	125
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	13.51	179.59	19.54	70.03
6	Quantity of Emission (Nm ³ / Hr)	87111.33	48625.85	646535.55	70340.28	252120.53
7	Concentration of PM (mg/Nm ³)	19.4	17.1	15.2	24.3	16.9
8	Concentration of SO ₂ (mg/Nm ³)	-	-	586.0	-	-
9	Concentration of NO _x (mg/Nm ³)	-	-	391.0	-	-
10	Oxygen (O ₂) (%)	9.1	8.7	10.1	9.5	8.7
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)						
 Analysed 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
Ref: SCML/ENV/FUGITIVE/MONTHLY/2024-25/21			
Month - December			
Date	Location	Fugitive Emission Results	As per CPCB/BIS Guideline
			Limit
		(in $\mu\text{g}/\text{m}^3$)	(in $\mu\text{g}/\text{m}^3$)
11.12.2024	Coal Storage Section	1358	2000
11.12.2024	Limestone Storage Section	1512	5000
11.12.2024	Clinker Loading Section	1677	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															
					Revision No.	04															
	NOISE LEVEL MONITORING REPORT					Revision Date	01-01-2021														
Ref: SCML/ENV/NOISE/MONTHLY/2024-25/21										Date: 04.12.2024											
Month - December																					
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	60.9	68.0	64.5	75	59.2	60.9	60.1	70												
2	Vertical Raw Mill	62.7	69.3	66.0		56.4	62.4	59.4													
3	Raw Mill WF	58.7	70.3	64.5		57.2	59.8	58.5													
4	Coal Mill	62.1	69.0	65.6		55.4	61.5	58.5													
5	Limestone Crusher(Dump Hopper)	61.7	68.8	65.3		57.8	58.3	58.1													
6	Additive Crusher	62.0	70.3	66.1		51.7	59.2	55.5													
B.																					
1	CCR	57.8	58.8	58.3		50.8	58.8	54.8													
2	Meeting Room	55.6	61.8	58.7		52.5	53.0	52.8													
3	VP'S Room	51.3	55.5	53.4		44.6	53.0	48.8													
4	Inst. Shift Room	53.6	64.3	59.0		49.4	52.4	50.9													
5	Electrical Office	59.7	65.5	62.6		44.6	56.8	50.7													
6	QC Department																				
	a)Chemical Lab	60.4	59.6	60.0	44.4	48.4	46.4														
	b)Physical Lab	57.3	64.3	60.8	46.5	56.6	51.6														
	c)XRF Lab	58.8	62.0	60.4	44.0	49.8	46.9														
	d) Sample Preparation Room	56.2	58.8	57.5	46.5	52.5	49.5														
C.	Residential																				
1	450 Quater's	40.9	45.2	43.1	55	35.4	34.5	35.0	45												
2	Worker's Colony	40.3	42.7	41.5		34.5	34.2	34.4													
 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/2024-25/21

Date of sample collection: 05.12.2024

Date of Analysis: 05.12.2024 to 10.12.2024

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	-	7.6	7.3	5.5 to 9.0
2	Colour	Hazen	Yellowish	Colourless	-
3	Odour	-	Odourless	Odourless	-
4	Chloride	mg/L	83.2	72.2	-
5	Total Hardness as CaCO ₃	mg/L	60.2	55.4	-
6	Suspended Solids	mg/L	86	52.2	100
7	Total Dissolve Solids	mg/L	344	326	-
8	Chemical Oxygen Demand	mg/L	212	52	250
9	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	56	18	30
10	Oil & Grease	mg/L	5.9	< 3.0	10
11	Temperature	° C	21	19	Shall not exceed 5.0°C above the receiving water temperature
12	Conductivity	µS/cm	536	498	-


Analysed 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/2024-25/21					Date of sample collection: 05.12.2024	
					Date of Analysis: 05.12.2024 to 10.12.2024	
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	-	7.2	7.1	5.5 to 9.0	
2	Suspended Solids	mg/L	87	42	100	
3	Total Dissolve Solids	mg/L	456	330	-	
4	Chemical Oxygen Demand	mg/L	402	63	250	
5	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	89	24	30	
6	Oil & Grease	mg/L	6.0	< 3.0	10	
7	Dissolved Oxygen	mg/L	6.6	5.3	-	
8	Temperature	° C	23	19	Shall not exceed 5.0°C above the receiving water temperature	
Shailendra Kumar Analysed By K. Gaurav Checked By  Verified By						



WATER TESTING REPORT

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

Reference No.: SCML/ENV/WATER/MONTHLY/2024-25/21

Surface Water Analysis Results

Date of sample collection: 05.12.2024

Date of Analysis: 05.12.2024 to 10.12.2024

Shailendra Kumar
Analyzed by

Checked by

Verified by