

STAR CEMENT LIMITED

Ref: SCL/EHS/LUM/2023-24/48

Dated: 03/02/2024

To,

The Member Secretary
Meghalaya State Pollution Control Board
'ARDEN', Lumpyngngad,
Shillong, Meghalaya - 793014

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

Reference : MPCB/TB-900/Pt-IV/2023-2024/90, Dated Shillong, the 3rd October, 2023.

Dear Sir,

This is in reference to above cited subject, we are hereby submitting the monthly Environmental monitoring reports of Ambient Air Quality for plant and ESZ including meteorological data, Stack Emission, Fugitive Emission, Surface water & Waste Water (STP) monitoring reports of **Star Cement Limited Line-I** for the month of **January, 2024**.

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

Thanking you,

Yours truly,
For **Star Cement Limited Line-I**



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.

Regd. Office & Works: P.O. Lumshnong, East Jaintia Hills District, Meghalaya-793210, E-mail: ehslums@starcement.co.in
Corporate Office: Century House, 2nd Floor, P 15/1, Taratala Road, Kolkata-700088, e-mail: kolkata@starcement.co.in



AN ISO 9001, ISO 14001 & ISO 45001 CERTIFIED COMPANY
CIN NO. L26942ML2001PLC006663

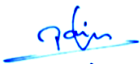


STAR CEMENT LIMITED
Lumshnong, Meghalaya

Date (DD-MM-YYYY)	Pressure (mmHg)	Relative Humidity (%)	Temp. (C)	Manual Rain (mm)
01-01-2024	720.1	75.4	19.7	0.0
02-01-2024	717.5	74.2	19.0	0.0
03-01-2024	717.2	75.0	19.9	0.0
04-01-2024	723.4	73.3	19.7	0.0
05-01-2024	720.7	73.1	19.6	0.0
06-01-2024	726.5	74.4	19.0	0.0
07-01-2024	721.1	73.2	20.0	0.0
08-01-2024	723.8	73.0	19.0	0.0
09-01-2024	725.4	73.2	19.5	0.0
10-01-2024	723.1	74.3	19.9	0.0
11-01-2024	721.1	77.5	20.0	0.0
12-01-2024	720.6	76.6	21.7	0.0
13-01-2024	721.0	80.8	19.8	0.0
14-01-2024	723.8	77.9	19.9	0.0
15-01-2024	724.0	78.1	20.8	0.0
16-01-2024	723.4	75.3	20.4	0.0
17-01-2024	721.8	81.6	17.6	0.0
18-01-2024	720.2	80.8	16.2	0.0
19-01-2024	717.8	73.8	17.9	0.0
20-01-2024	723.4	66.8	17.8	0.0
21-01-2024	723.9	69.8	19.3	0.0
22-01-2024	721.6	74.6	19.6	0.0
23-01-2024	723.8	74.1	19.7	0.0
24-01-2024	725.4	72.0	20.9	0.0
25-01-2024	723.8	74.7	19.7	0.0
26-01-2024	718.6	71.4	18.9	0.0
27-01-2024	725.3	74.3	19.4	0.0
28-01-2024	723.1	75.7	19.9	0.0
29-01-2024	721.9	77.8	16.6	0.0
30-01-2024	722.7	76.6	19.0	0.0
31-01-2024	723.1	75.7	19.9	0.0
			Total	0.0

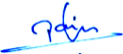
	STAR CEMENT LIMITED Lumshnong, Meghalaya		Reference No.	SCL/Env/F – 01
			Issue No.	1
	AMBIENT AIR QUALITY MONITORING REPORT		Date of Issue:	24.08.2013
			Revision No.	5
			Date of Rev.	01.12.2020
Reference No.: SCL/ENV/AAQM/MONTHLY/2023-24/10			Month : January	
Location of Sampling: Near Star Club		GPS Coordinate: 25°10'36"N 92°23'16"E 928 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)
02.01.2024	41.14	30.31	14.05	20.86
04.01.2024	40.15	29.28	14.11	19.02
06.01.2024	41.15	29.99	12.32	20.77
09.01.2024	41.64	31.30	12.11	19.39
11.01.2024	40.14	30.16	13.29	20.76
13.01.2024	41.08	33.00	12.14	18.24
16.01.2024	43.45	32.11	12.90	19.77
18.01.2024	42.01	30.66	13.45	18.99
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 LIMITED Lumshnong, Meghalaya		Reference No.	SCL/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.: SCL/ENV/AAQM/MONTHLY/2023-24/10			Month : January	
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)
02.01.2024	73.49	46.14	15.82	22.61
04.01.2024	68.14	47.02	16.84	23.64
06.01.2024	70.37	47.68	17.30	21.62
09.01.2024	74.36	46.01	16.75	20.55
11.01.2024	71.69	43.84	15.27	18.22
13.01.2024	73.19	46.21	13.59	18.77
16.01.2024	78.74	50.60	18.33	22.75
18.01.2024	74.85	47.89	17.42	20.59
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 LIMITED Lumshnong, Meghalaya		Reference No.	SCL/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.: SCL/ENV/AAQM/MONTHLY/2023-24/10			Month : January	
Location of Sampling: Near Security Gate - 3		GPS Coordinate: 25°10'27"N 92°23'37"E 944 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)
02.01.2024	77.72	47.12	16.88	23.77
04.01.2024	72.37	46.60	18.14	23.40
06.01.2024	74.60	47.26	18.10	22.76
09.01.2024	78.59	45.59	19.12	22.17
11.01.2024	75.92	43.42	15.87	20.79
13.01.2024	77.42	45.79	14.46	20.42
16.01.2024	80.73	48.74	17.90	21.58
18.01.2024	76.84	46.03	17.11	20.05
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 LIMITED Lumshnong, Meghalaya		Reference No.	SCL/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.: Tongseng Village /2023-24/09			Month : January	
Location of Sampling: Tongseng Village		GPS Coordinate: 25°10'08"N 92°24'17"E 756 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)
19.01.2024	41.89	24.08	12.92	17.16
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 LIMITED Lumshnong, Meghalaya						Reference No.	SCL/Env/F-02	
							Issue No.	1	
	STACK EMISSION MONITORING ANALYSIS REPORT						Date of Issue	01.05.2019	
							Revision No.	5	
Report No: SCL/ENV/STACK/MONTHLY/2023-24/10						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	S-6	S-7	S-8
2	Stack Connected to	Kiln/Raw Mill	Coal Mill	Cooler	Roller Press	Cement Mill	Packing Plant	Primary Crusher	Secondary Crusher
3	Material of Construction (Stack/Duct)	Mild Steel	Mild Steel	Mild Steel	Mild Steel	Mild Steel	Mild Steel	Mild Steel	Mild Steel
4	Shape of duct	Circular	Circular	Circular	Circular	Circular	Circular	Circular	Circular
5	Whether duct is provided with permanent platform & ladder	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
B. Physical characteristic of stack									
1	Stack Height from ground level (meter)	45.4	37	30.4	24	30	28	21	17
2	Duct diameter at sampling point (meter)	3	1.2	2.8	1.4	1.5	1.1	1.2	1.0
3	Sampling height point from ground level (meter)	-	-	-	-	-	-	-	-
4	Cross sectional area of Duct/Stack (m²)	7.07	1.13	6.15	1.54	1.77	0.95	1.13	0.79
C. Pollution Control Device									
1	Details of pollution control device attached to stack	Reverse Air Bag House	Bag Filter	ESP	Bag Filter	Bag Filter	Bag Filter	Bag Filter	Bag Filter
D. Result of Sampling & Analysis of Gaseous Emission									
1	Date of Sampling	09.01.2024	13.01.2024	09.01.2024	10.01.2024	23.01.2024	23.01.2024	13.01.2024	13.01.2024
2	Ambient Temp (°C)	26	25	28	25	22	24	22	23
3	Stack Gas Temp (°C)	138	73	115	37	34	32	29	32
4	Exit Velocity of Gas (m/sec.)	16.45	13.36	7.85	13.58	13.06	12.54	12.95	12.54
5	Flow Rate (Nm³/ sec.)	79.83	12.32	35.38	18.40	20.95	11.01	13.48	9.09
6	Quantity of Emission (Nm³/ Hr)	287405.51	44364.30	127377.52	67374.52	75415.15	39639.38	48524.69	32709.37
7	Concentration of PM (mg/Nm³)	16.9	27.3	18.8	20.0	23.9	22.2	19.4	21.0
8	Concentration of SO₂ (mg/Nm³)	540.0	-	-	-	-	-	-	-
9	Concentration of NOx (mg/Nm³)	234.0	-	-	-	-	-	-	-
10	Oxygen (O₂) (%)	9.0	9.8	8.0	9.6	9.1	9.5	9.0	9.2
E. Remarks									
Standard									
PM - 30 mg/Nm³			SO₂ - 1000 mg/Nm³			NOx - 800 mg/Nm³			
Particulate Matter (PM), Sulphur di-oxide (SO₂), Oxide of Nitrogen (Nox), Electro Static Precipitator (ESP)									
 Analysis by  Checked by  Authorized Signatory									

	STAR CEMENT LIMITED Lumshnong, Meghalaya	Document No.	SCL/EHS/Env/F-04
		Date of Issued	01-05-2019
		Revision No.	2
	FUGITIVE EMISSION MONITORING REPORT	Revision Date	01-01-2021
Ref: SCL/ENV/FUGITIVE/MONTHLY/2023-24/10			
Month - January			
Date	Location	Fugitive Emission Results	As per CPCB/BIS Guideline
			Limit
		(in $\mu\text{g}/\text{m}^3$)	(in $\mu\text{g}/\text{m}^3$)
05.01.2024	Coal Storage Section	1327	2000
05.01.2024	Limestone Storage Section	1377	5000
 Analyzed By  Checked by  Verified By			

	STAR CEMENT LIMITED Lumshnong, Meghalaya				Reference No.	SCL/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/2023-24/10

Date of sample collection: 06.01.2024

Date of Analysis: 06.01.2024 to 09.01.2024

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	7.6	5.5 to 9.0
2	Colour	Hazen	Yellowish	Colourless	-
3	Odour	-	Odourless	Odourless	-
4	Chloride	mg/L	79.9	82.0	-
5	Total Hardness as CaCO ₃	mg/L	56.0	57.2	-
6	Suspended Solids	mg/L	80	24.0	100
7	Total Dissolve Solids	mg/L	318	328	-
8	Chemical Oxygen Demand	mg/L	264	48	250
9	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	87	12.0	30
10	Oil & Grease	mg/L	2.4	< 3.0	10
11	Temperature	° C	25	25	Shall not exceed 5.0°C above the receiving water temperature
12	Conductivity	µS/cm	488	495	-


 Analysis By


 Checked By


 Verified By

	STAR CEMENT LIMITED Lumshnong, Meghalaya									Reference No.	SCL/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.: SCL/ENV/WATER/MONTHLY/2023-24/10									Date of sample collection: 06.01.2024						
Surface Water Analysis Results									Date of Analysis: 06.01.2024 to 09.01.2024						
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	8.2	7.6	8.0	8.5	7.4	Water source not found				7.8	6.5 - 8.5	
2	Colour	Hazen	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless					Colourless	Colourless	10
3	Odour	-	Unobjectionable										Unobjectionable	Unobjectionable	
4	Chloride	mg/L	25.0	29.7	28.0	27.1	31.5	25.2					24.9	250	
5	Total Hardness as CaCO ₃	mg/L	53.2	68.6	76.9	84.8	88.4	50.1					48.1	300	
6	Suspended Solids	mg/L	2.0	3.7	2.5	5.0	8.0	1.0					2.5	-	
7	Total Dissolve Solids	mg/L	258.0	190.0	268.1	321.0	310.7	140.0					225.0	500	
8	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	ND	ND	ND	ND	ND	ND					ND	2.0	
9	Oil & Grease	mg/L	ND	ND	ND	ND	ND	ND					ND	-	
10	Temperature	° C	25.0	25.0	25.0	25.0	25.0	25.0					25.0	-	
11	Conductivity	µS/cm	450.0	330.0	435.4	520.7	536.7	222.0					430.7	-	
12	Flow	L / Min	1577.6	1836.0	343.4	677.7	1224.0	39372.0					-		
 Analyzed by  Checked by  Verified by															