

STAR CEMENT LIMITED

Ref: SCL/EHS/LUM/2023-24/08

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 : Ref. No.: MPCB/CON-900-Pt-IV/2021-2022/76, Dated. Shillong, the 11th Feb, 2022.

Dear Sir,

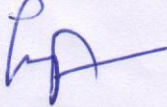
This is in reference to above cited subject, we are hereby submitting the monthly Environmental monitoring reports of Ambient Air Quality for plant and ESZ including meteorological data, Stack Emission, Fugitive Emission, Surface water & Waste Water (STP) monitoring reports of M/s Star Cement Limited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



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.
 - 3) The Member Secretary, State Environment Impact Assessment Authority (SEIAA), 'Silviculture Building' Lower Lachumiere, Shillong-793001, Meghalaya.



STAR CEMENT 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 LIMITED
Lumshnong, Meghalaya

AMBIENT AIR QUALITY MONITORING REPORT

Reference No.	SCL/Env/F - 01
Issue No.	1
Date of Issue:	24.08.2013
Revision No.	5
Date of Rev.	01.12.2020

Reference No.: SCL/ENV/AAQM/MONTHLY/2023-24/01

Month: April

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)
04.04.2023	32.39	22.39	10.20	16.32
06.04.2023	39.66	24.25	11.17	14.48
08.04.2023	35.46	20.00	9.38	16.23
10.04.2023	31.96	22.39	9.17	14.85
12.04.2023	38.71	21.25	10.35	16.25
14.04.2023	38.35	24.09	9.20	13.75
17.04.2023	35.49	23.20	9.96	15.25
19.04.2023	33.45	22.90	10.51	14.06
NAAQS permissible limits for Rural, Industrial, Residential Area	100 (µg/m³)	60 (µg/m³)	80 (µg/m³)	80 (µg/m³)

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

AMBIENT AIR QUALITY MONITORING REPORT

Reference No.	SCL/Env/F – 01
Issue No.	1
Date of Issue:	24.08.2013
Revision No.	5
Date of Rev.	01.12.2020

Reference No.: SCL/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/m³)	60 (µg/m³)	80 (µg/m³)	80 (µg/m³)

Remarks: All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009.


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STAR CEMENT LIMITED
Lumshnong, Meghalaya

AMBIENT AIR QUALITY MONITORING REPORT

Reference No.	SCL/Env/F - 01
Issue No.	1
Date of Issue:	24.08.2013
Revision No.	5
Date of Rev.	01.12.2020

Reference No.: SCL/ENV/AAQM/MONTHLY/2023-24/01

Month: April


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)
04.04.2023	70.66	41.76	18.26	22.29
06.04.2023	65.31	42.64	19.28	23.32
08.04.2023	67.54	43.30	19.74	21.30
10.04.2023	71.53	41.63	19.19	20.23
12.04.2023	68.86	39.46	17.71	19.48
14.04.2023	70.36	41.83	16.03	20.34
17.04.2023	72.11	43.21	18.19	20.32
19.04.2023	68.22	40.50	17.40	18.23
NAAQS permissible limits for Rural, Industrial, Residential Area	100 (µg/m³)	60 (µg/m³)	80 (µg/m³)	80 (µg/m³)

Remarks: All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009.


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STAR CEMENT LIMITED
Lumshnong, Meghalaya

AMBIENT AIR QUALITY MONITORING REPORT

Reference No.	SCL/Env/F - 01
Issue No.	1
Date of Issue:	24.08.2013
Revision No.	5
Date of Rev.	01.12.2020

Reference No.: Tongseng Village /2023-24/01

Month: April


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)
19.04.2023	30.54	16.65	11.17	13.03
NAAQS permissible limits for Rural, Industrial, Residential Area	100 (µg/m ³)	60 (µg/m ³)	80 (µg/m ³)	80 (µg/m ³)


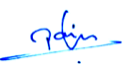


Remarks: All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009.






Analysed by


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	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/2023-24/01						Date of Rev.	01.06.2021		
Analysis Result								Month: April'23	
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 (m ²)	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	28.04.2023	28.04.2023	28.04.2023	18.04.2023	21.04.2023	21.04.2023	14.04.2023	14.04.2023
2	Ambient Temp (°C)	27	28	40	27	24	25	22	21
3	Stack Gas Temp (°C)	195	86	248	38	35	37	33	30
4	Exit Velocity of Gas (m/sec.)	19.45	13.82	10.29	14.48	13.17	12.55	14.33	13.43
5	Flow Rate (Nm ³ / sec.)	82.91	12.26	34.86	19.89	21.06	10.84	14.72	9.79
6	Quantity of Emission (Nm ³ / Hr)	298469.77	44152.70	125487.08	71600.60	75825.62	39039.41	52986.06	35256.59
7	Concentration of PM (mg/Nm ³)	16.15	26.87	20.50	22.52	15.95	19.73	19.48	22.96
8	Concentration of SO ₂ (mg/Nm ³)	560.0	-	-	-	-	-	-	-
9	Concentration of NO _x (mg/Nm ³)	452.0	-	-	-	-	-	-	-
10	Oxygen (O ₂) (%)	9.6	11.5	7.3	9.5	8.6	6.0	9.7	9.1
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)									
 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/2023-24/01			
Month - April 2023			
Date	Location	Fugitive Emission Results (in $\mu\text{g}/\text{m}^3$)	As per CPCB/BIS Guideline
			Limit (in $\mu\text{g}/\text{m}^3$)
17.04.2023	Coal Storage Section	1438	2000
17.04.2023	Limestone Storage Section	2067	5000
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	STAR CEMENT LIMITED Lumshnong, Meghalaya				Reference No.	SCL/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.: SCL/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	-	
<div style="display: flex; justify-content: space-between; align-items: flex-end; padding: 10px;"> <div style="text-align: center;">  Analysis By </div> <div style="text-align: center;">  Checked By </div> <div style="text-align: center;">  Verified By </div> </div>						



STAR CEMENT LIMITED
Lumshnong, Meghalaya

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

WATER TESTING REPORT

Reference No.: SCL/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

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