# **STAR CEMENT MEGHALAYA LIMITED**

Regd. Office & Works : Lunshnong, PO-Khaliehriat, Distt.– East Jaintia Hills, Meghalaya-793210 Ph: 03655-278215/16/18, Fax: 03655-278217, e-mail: <u>lumshnong@starcement.co.in</u>

Ref: SCML/EHS/LUM/2021-22/04

Dated: 17/05/2021

To,

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

Subject: Monthly Environmental Monitoring Report.

Ref. No.: MPCB/TB-115-2009/2020-2021/08, Dated. Shillong, the 26th March, 2021.

Dear Sir,

Please find enclosed herewith the monthly report of Ambient Air Quality monitoring including meteorological, Fugitive Emission, Stack Emission & Noise Level, Water (Drinking, ETP) monitoring reports of **Star Cement Meghalaya Limited** for the month of **April, 2021** for your kind perusal.

Thanking you,

Yours faithfully For Star Cement Meghalaya Limited



Enclosed: Monitoring Report for the month of April'21.



Corporate Office : Satyam Tower, 3 Alipore Road, 1<sup>st</sup> Floor, Unit No. 9B, Kolkata-700027 Ph: +91 33 2448 4169 / 4170 / 4693, Fax: +91 332448 4168, e-mail: <u>kolkata@starcement.co.in</u>

STARCEMENT Solid Setting	STAR CEMENT MEGHALAYA LIMITED	Reference No.	SCML/Env/F – 01		
		Issue No.	1		
	Lunismong, Meghalaya	Date of Issue:	24.08.2013		
	AMBIENT AIR QUALITY MONITORING REPORT	Revision No.	4		
		Date of Rev.	01.12.2020		
Ref: SCML/Env/AAQM/Monthly/2021-22/001					

Location of Sampling	: SCML, Lumshnong
Date of Sampling	: 01.04.2021 - 02.04.2021
Distance between the Industry and sampling Location	: NA
Time duration of sampling	: 24 hrs.
Weather	: Dry
Total Rain Fall (mm)	: No Rain Fall
Ambient Temperature ( <sup>°</sup> C)	
Maximum	: 27.5 0C
Minimum	: 18.2 OC
Relative Humidity (%)	
Maximum	: 96.6 %
Minimum	: 69.1 %
Wind Direction	: W-E
Wind Speed (km/hr.)	: 59.2

	Air Quality Monitoring Analysis Result					National
		Ambient Air				
Pollutants	1 (Near Pump House) S/001/21-22	2 (Near Worker Colony) S/002/21-22	3 (Near Raw Mill Hopper) S/003/21-22	4 (Behind MPL DM Plant) S/004/21-22	5 (Near Water Reservoir) S/005/21-22	Quality Standards Permissible
GPS Coordinate	25*10'42"N 92*23'32"E 919 m	25*10'46"N 92*23'17"E 932 m	25*1045"N 92*23'29"E 923 m	25*1044"N 92*23'50"E 897 m	25*10'45"N 92*23'53"E 893 m	Limits for Rural , Ind., Residential Area
Suspended Particulate Matter (Size less than 10 μm) or PM10 μg/m3	52.8	62.0	62.1	57.1	62.5	100
Suspended Particulate Matter (Size less than 2.5 µm) or PM2.5 µg/m3	32.7	41.0	40.7	36.9	27.4	60
Sulphur Dioxide SO2 (µg/m3)	9.9	9.5	9.5	10.8	10.8	80
Nitrogen Dioxide NO2 (µg/m3)	11.5	13.8	12.7	14.7	14.0	80

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STARCEMENT Solid Setting	STAR CEMENT MEGHALAYA LIMITED	Reference No.	SCL/Env/F – 01			
	Lumshnong, Meghalaya	Issue No.	1			
	Lumsmong, Weghalaya	Date of Issue:	24.08.2013			
		Revision No.	4			
	AMBIENT AIR QUALITY MONITORING REPORT	Date of Rev.	01.12.2020			
Ref: SCMI /Env/AAOM	Ref <sup>.</sup> SCMI /Env/AAOM/Monthly/2021-22/002					

Location of Sampling	: SCML, Lumshnong
Date of Sampling	: 23.04.2021 - 24.04.2021
Distance between the Industry and sampling Location	: NA
Time duration of sampling	: 24 hrs.
Weather	: Dry
Total Rain Fall (mm)	: No Rain Fall
Ambient Temperature ( <sup>°</sup> C)	
Maximum	: 28.3 OC
Minimum	: 19.0 OC
Relative Humidity (%)	
Maximum	: 94.4 %
Minimum	: 60.0 %
Wind Direction	: NW-SE
Wind Speed (km/hr.)	: 12.9

	Air Quality Monitoring Analysis Result					National
			ation Name & N	0.		Ambient Air
Pollutants	1	2	3	4	5	Quality
	(Near Pump	(Near Worker	(Near Raw	(Behind MPL	(Near Water	Standards
	House) S/006/21-22	Colony) S/007/21-22	Mill Hopper) S/008/21-22	DM Plant) S/009/21-22	Reservoir) S/010/21-22	Permissible
	25*10'42″N	25*10'46"N	25*1045″N	25*1044″N	25*10'45"N	Limits for Rural,
GPS Coordinate	92*23'32"E 919			92*23'50"E 897	92*23'53"E 893	Ind., Residential Area
	m	m	m	m	m	
Suspended Particulate						
Matter (Size less than 10	51.7	56.7	62.7	51.9	64.7	100
μm) or PM10 μg/m3						
Suspended Particulate						
Matter (Size less than 2.5	34.4	38.5	36.0	32.8	28.7	60
μm) or PM2.5 μg/m3						
Sulphur Dioxide SO2	10.9	9.9	10.7	9.3	9.7	80
(µg/m3)	2010	0.0		5.0		
Nitrogen Dioxide NO2 (µg/m3)	12.5	15.0	15.0	11.8	15.2	80

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STARCEMENT Solid Setting	STAR CEMENT MEGHALAYA LIMITED	Reference No.	SCL/Env/F – 01
	Lumshnong, Meghalaya	Issue No.	1
	Lumining, Meghalaya	Date of Issue:	24.08.2013
	AMBIENT AIR QUALITY MONITORING REPORT	Revision No.	4
		Date of Rev.	01.12.2020
Ref. SCMI /Env/AAOM	/Monthly/2021_22/003	•	-

Location of Sampling	: SCML, Lumshnong
Date of Sampling	: 24.04.2021 - 25.04.2021
Distance between the Industry and sampling Location	: NA
Time duration of sampling	: 24 hrs.
Weather	: Dry
Total Rain Fall (mm)	: No Rain Fall
Ambient Temperature ( <sup>°</sup> C)	
Maximum	: 30.3 OC
Minimum	: 18.1 OC
Relative Humidity (%)	
Maximum	: 91.4 %
Minimum	: 45.1 %
Wind Direction	: N-S
Wind Speed (km/hr.)	: 5.7

	Air Quality Monitoring Analysis Result					National
		Ambient Air				
Pollutants	1	2	3	4	5	Quality
	(Near Pump House) S/011/21-22	(Near Worker Colony) S/012/21-22	(Near Raw Mill Hopper) S/013/21-22	(Behind MPL DM Plant) S/014/21-22	(Near Water Reservoir) S/015/21-22	Standards Permissible Limits for Rural,
GPS Coordinate	25*10'42"N 92*23'32"E 919 m	25*10'46"N 92*23'17"E 932 m	25*1045"N 92*23'29"E 923 m	25*1044"N 92*23'50"E 897 m	25*10'45"N 92*23'53"E 893 m	Ind., Residential Area
Suspended Particulate Matter (Size less than 10 μm) or PM10 μg/m3	51.2	62.5	57.7	54.2	61.2	100
Suspended Particulate Matter (Size less than 2.5 μm) or PM2.5 μg/m3	31.7	47.4	43.3	35.6	30.3	60
Sulphur Dioxide SO2 (μg/m3)	8.7	12.2	11.1	11.6	9.3	80
Nitrogen Dioxide NO2 (μg/m3)	14.7	13.8	16.5	13.0	14.7	80

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STARCEMENT Solid Setting	STAR CEMENT MEGHALAYA LIMITED	Reference No.	SCL/Env/F – 01		
		Issue No.	1		
	Lumining, Meghalaya	Date of Issue:	24.08.2013		
		Revision No.	4		
	AMBIENT AIR QUALITY MONITORING REPORT	Date of Rev.	01.12.2020		
Ref: SCMI /Env/AAOM/Monthly/2021-22/004					

Location of Sampling	: SCML, Lumshnong
Date of Sampling	: 26.04.2021 - 27.04.2021
Distance between the Industry and sampling Location	: NA
Time duration of sampling	: 24 hrs.
Weather	: Dry
Total Rain Fall (mm)	: No Rain Fall
Ambient Temperature ( <sup>°</sup> C)	
Maximum	: 30.0 OC
Minimum	: 18.0 OC
Relative Humidity (%)	
Maximum	: 90.3 %
Minimum	: 40.0 %
Wind Direction	: E-W
Wind Speed (km/hr.)	: 10.7

	Air Quality Monitoring Analysis Result					National
		Ambient Air				
Pollutants	1	2	3	4	5	Quality
	(Near Pump House) S/016/21-22	(Near Worker Colony) S/017/21-22	(Near Raw Mill Hopper) S/018/21-22	(Behind MPL DM Plant) S/019/21-22	(Near Water Reservoir) S/020/21-22	Standards Permissible Limits for Rural,
GPS Coordinate	25*10'42"N 92*23'32"E 919 m	25*10'46"N 92*23'17"E 932 m	25*1045"N 92*23'29"E 923 m	25*1044"N 92*23'50"E 897 m	25*10'45"N 92*23'53"E 893 m	Ind., Residential
Suspended Particulate Matter (Size less than 10 μm) or PM10 μg/m3	55.2	69.5	66.6	58.2	55.6	100
Suspended Particulate Matter (Size less than 2.5 µm) or PM2.5 µg/m3	37.0	41.3	31.4	36.9	32.3	60
Sulphur Dioxide SO2 (μg/m3)	10.6	13.0	12.2	10.8	10.8	80
Nitrogen Dioxide NO2 (μg/m3)	11.9	17.1	14.1	12.2	16.1	80

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STARCEMENT Solid Setting	STAR CEMENT MEGHALAYA LIMITED	Reference No.	SCL/Env/F – 01	
		Issue No.	1	
	Lunisinong, Meghalaya	Date of Issue:	24.08.2013	
	AMPIENT AID OLIALITY MONITODING DEPORT	Revision No.	4	
	AMBIENT AIR QUALITY MONITORING REPORT	Date of Rev.	01.12.2020	
Ref: SCMI /Env/AAOM/Monthly/2021-22/005				

Location of Sampling	: SCML, Lumshnong
Date of Sampling	: 27.04.2021 - 28.04.2021
Distance between the Industry and sampling Location	: NA
Time duration of sampling	: 24 hrs.
Weather	: Dry
Total Rain Fall (mm)	: No Rain Fall
Ambient Temperature ( <sup>°</sup> C)	
Maximum	: 29.3 OC
Minimum	: 17.2 OC
Relative Humidity (%)	
Maximum	: 88.2 %
Minimum	: 51.2 %
Wind Direction	: NE-SW
Wind Speed (km/hr.)	: 5.7

	Air Quality Monitoring Analysis Result					National
	Station Name & No.					Ambient Air
Pollutants	1 (Near Pump	2 (Near Worker	3 (Near Raw	4 (Behind MPL	5 (Near Water	Quality Standards
	House) S/021/21-22	Colony) S/022/21-22	Mill Hopper) S/023/21-22	DM Plant) S/024/21-22	Reservoir) S/025/21-22	Permissible Limits for Rural ,
GPS Coordinate	25*10'42"N 92*23'32"E 919 m	25*10'46"N 92*23'17"E 932 m	25*1045"N 92*23'29"E 923 m	25*1044"N 92*23'50"E 897 m	25*10'45"N 92*23'53"E 893 m	Ind., Residential Area
Suspended Particulate Matter (Size less than 10 μm) or PM10 μg/m3	54.4	60.6	63.2	52.4	64.5	100
Suspended Particulate Matter (Size less than 2.5 µm) or PM2.5 µg/m3	33.6	40.9	33.6	38.5	28.8	60
Sulphur Dioxide SO2 (µg/m3)	10.0	11.9	11.9	9.7	12.1	80
Nitrogen Dioxide NO2 (µg/m3)	10.6	13.6	14.4	12.6	17.0	80

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STARCEMENT Solid Setting	STAR CEMENT MEGHALAYA LIMITED	Reference No.	SCL/Env/F – 01	
		lssue No.	1	
	Lumsmong, Megnalaya	Date of Issue:	24.08.2013	
		Revision No.	4	
	AMBIENT AIR QUALITY MONITORING REPORT	Date of Rev.	01.12.2020	
Ref: SCMI /Env/AAOM/Monthly/2021-22/006				

Location of Sampling	: SCML, Lumshnong
Date of Sampling	: 30.04.2021 - 01.05.2021
Distance between the Industry and sampling Location	: NA
Time duration of sampling	: 24 hrs.
Weather	: Dry
Total Rain Fall (mm)	: No Rain Fall
Ambient Temperature ( <sup>°</sup> C)	
Maximum	: 31.0 OC
Minimum	: 18.1 OC
Relative Humidity (%)	
Maximum	: 78.3 %
Minimum	: 38.1 %
Wind Direction	: NE-SW
Wind Speed (km/hr.)	: 7.4

	Air Quality Monitoring Analysis Result					National
	Station Name & No.					Ambient Air
Pollutants	1	2	3	4	5	Quality
	(Near Pump House) S/026/21-22	(Near Worker Colony) S/027/21-22	(Near Raw Mill Hopper) S/028/21-22	(Behind MPL DM Plant) S/029/21-22	(Near Water Reservoir) S/030/21-22	Standards Permissible Limits for Rural ,
GPS Coordinate	25*10'42"N 92*23'32"E 919 m		25*1045"N 92*23'29"E 923 m	25*1044"N 92*23'50"E 897 m	25*10'45"N 92*23'53"E 893 m	Ind., Residential Area
Suspended Particulate Matter (Size less than 10 μm) or PM10 μg/m3	56.8	66.0	63.3	63.0	58.7	100
Suspended Particulate Matter (Size less than 2.5 µm) or PM2.5 µg/m3	40.5	41.2	38.7	32.1	33.6	60
Sulphur Dioxide SO2 (µg/m3)	9.8	10.2	9.9	12.2	12.7	80
Nitrogen Dioxide NO2 (µg/m3)	12.5	13.1	15.8	13.7	18.0	80

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Name of Sampling Location	: SCML, Lumshnong
Date of Sampling	: 05/04/2021
Type of Stack	: RABH
Stack Sampling Height (8D)	: 25 Meter
Laboratory Report No.	: S/01/21-22
Parameters:	
1) Particulate Matter (PM)	: 25.8 mg/Nm <sup>3</sup>

**Remarks:** The parameter tested was found to be within the permissible limits of Stack Emission Standards as per EPA Notification G.S.R. 496(E) dated 9th May, 2016 and G.S.R. 497(E) dated 10th May, 2016.



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Name of Sampling Location	: SCML, Lumshnong
Date of Sampling	: 08/04/2021
Type of Stack	: Coal Mill
Stack Sampling Height (8D)	: 26 Meter
Laboratory Report No	: S/02/21-22
Parameters:	
1) Particulate Matter (PM)	: 25.1 mg/Nm <sup>3</sup>

**Remarks:** The parameter tested was found to be within the permissible limits of Stack Emission Standards as per EPA Notification G.S.R. 496(E) dated 9th May, 2016 and G.S.R. 497(E) dated 10th May, 2016.



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Name of Sampling Location	: SCML, Lumshnong		
Date of Sampling	: 08/04/2021		
Type of Stack	: Cooler ESP		
Stack Sampling Height (8D)	: 25 Meter		
Laboratory Report No.	: S/03/21-22		
Parameters:			
1) Particulate Matter (PM)	: 27.1 mg/Nm <sup>3</sup>		

Remarks: The parameter tested was found to be within the permissible limits of Stack Emission Standards as per EPA Notification G.S.R. 496(E) dated 9th May, 2016 and G.S.R. 497(E) dated 10th May, 2016.



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Name of Sampling Location	: SCML, Lumshnong
Date of Sampling	: 10/04/2021
Type of Stack	: Lime Stone Crusher
Stack Sampling Height (8D)	: 12 Meter
Laboratory Report No.	: S/04/21-22
Parameters:	
1) Particulate Matter (PM)	: 21.5 mg/Nm <sup>3</sup>

Remarks: The parameter tested was found to be within the permissible limits of Stack Emission Standards as per EPA Notification G.S.R. 496(E) dated 9th May, 2016 and G.S.R. 497(E) dated 10th May, 2016.



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Name of Sampling Location	: SCML, Lumshnong	
Date of Sampling	: 10/04/2021	
Type of Stack	: Coal Mill	
Stack Sampling Height (8D)	: 26 Meter	
Laboratory Report No.	: S/05/21-22	
Parameters:		
1) Particulate Matter (PM)	: 17.0 mg/Nm <sup>3</sup>	

**Remarks:** The parameter tested was found to be within the permissible limits of Stack Emission Standards as per EPA Notification G.S.R. 496(E) dated 9th May, 2016 and G.S.R. 497(E) dated 10th May, 2016.

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## **STAR CEMENT MEGHALAYA** LIMITED

SCML/EHS/Env/F-04 Document No. 01-05-2019 Date of Issued **Revision No.** 2 **Revision Date** 01-01-2021

FUJITIVE EMISSION MONITORING REPORT

### Ref: SCML/Env/ Fugitive/Monthly/2021-22/001

### Month: April - 2021

Date	Location	Fugitive Emission Results	Limit	
		(in µg/m³)	(in μg/m <sup>3</sup> )	
10.04.2021	Coal Storage Section	1300	2000	
10.04.2021	Limestone Storage Section	1681	5000	
10.04.2021	Clinker Loading Section	1790	2000	

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<b>STARCEMENT</b>
Solid Setting

Ref: SCL(LM)/Env/Noise/Monthly/2021-22/001

## STAR CEMENT MEGHALAYA LIMITED

Document No.MPL/EHS/Env/F-03Effective Date01-05-2019Revision No.04Revision Date01-01-2021

Month:

Lumshnong, Meghalava NOISE LEVEL MONITORING REPORT

09.04.2021

S. No.	Location	Measured Values dB(A) Day time (6:00am to 10:00pm)			Norms	Measured Values dB(A) Night time (10:00pm to 6:00am)		Norms in dB(A)	
		Min.	Max.	Avg.	In dB(A)	Min.	Max.	Avg.	IN OB(A)
Α	Plant								
1	Kiln	65.0	71.6	68.3		60.9	66.0	63.4	
2	Vertical Raw Mill	67.9	72.8	70.4		64.3	65.2	64.8	
3	Raw Mill WF	65.3	60.2	62.7		55.5	67.6	61.6	
4	Coal Mill	65.1	67.6	66.4		58.3	65.5	61.9	
5	Limestone Crusher (Dum	66.7	68.2	67.5		61.9	67.2	64.5	
6	Additive Crusher	61.8	65.9	63.8		54.4	64.0	59.2	
В.									
1	CCR	62.9	69.4	66.1		60.9	66.1	63.5	
2	Meeting Room	62.2	67.0	64.6	75	55.7	66.0	60.9	70
3	VP'S Room	59.5	54.5	57.0		55.7	66.0	60.9	
4	Inst. Shift Room	66.6	69.2	67.9		48.5	55.1	51.8	
5	Electrical Office	68.3	69.8	69.0		45.3	62.7	54.0	
6	QC Department	63.4	67.4	65.4		51.8	55.3	53.5	
	a)Chemical Lab	60.3	65.4	60.3		50.6	52.7	51.6	
	b)Physical Lab	62.3	68.3	65.3		47.7	50.6	49.2	
	c)XRF Lab	68.4	70.6	69.5	]	46.8	49.2	48.0	
	d) Sample Preparation R	68.4	70.6	69.5		48.2	48.0	48.1	
С.	Residential								
1	450 Quater's	52.6	60.7	53.3	55	42.0	54.1	42.0	45
2	Worker's Colony	51.2	59.0	51.2		43.5	51.7	43.5	

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# **STAR CEMENT MEGHALAYA LIMITED**

Repo	rt No. – 01				<b>uple Collection:</b> 10.04.2021 <b>e:</b> 10.04.2021 to 13.04.2021
SI. No	Parameter	Unit	Drinking Water (RO Plant)	Indian Standard Specification for Drinking Water IS : 10500-2012 Acceptable Limit (Max.)	Indian Standard Specification for Drinking Water IS : 10500-2012 Permissible Limit (Max.)
1	рН	Hazen	7.0	6.5 to 8.5	No relaxation
2	Colour	mg/lit	Colourless	5	15
3	Odour	mg/lit	Agreeable	Agreeable	Agreeable
4	Total Hardness as CaCO3	mg/lit	57.9	200	600
5	Calcium as Ca	mg/lit	16.4	75	200
6	Magnesium as Mg	mg/lit	4.6	30	100
7	Total Dissolve Solids	mg/lit	143.4	500	2000
8	Chloride	mg/lit	13.4	250	1000
9	Total Residual Chlorine	mg/lit	BDL	0.2	1
10	Turbidity	NTU	0.05	1	5
11	Iron	mg/lit	BDL	0.3	No Relaxation
12	Dissolved Oxygen	mg/lit	3.0	-	-

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	STAR CEMENT MEGHALAYA LIMITED	Reference No.	SCML/EHS/F - 04
Ś		Issue No.	01
STARCEMENT Solid Setting	Lumshnong, Meghalaya	Date of Issue:	01.11.2015
		Revision No.	03
	WATER TESTING REPORT		01.06.2019

Report	No 01			
				Date of Sample Collection: 10.04.2021
	1	I	I	Analysis Date: 10.04.2021 to 13.04.2021
S. No.	Parameter	Unit	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	рН	-	7.5	5.5 to 9.0
2	Suspended Solids	mg/lit	25.3	100
3	Total Dissolve Solids	mg/lit	348.0	-
4	Cemical Oxegan Demand	mg/lit	59.7	250
5	Biochemical Oxegan Demand ( For 3 days at 27deg. C)	mg/lit	24.2	30
6	Oil& Grease	mg/lit	<3	10
7	Dissolved Oxygen	mg/lit	6.1	-

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