

# 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: [lunshnong@starcement.co.in](mailto:lunshnong@starcement.co.in)

Ref: SCML/EHS/LUM/2021-22/11

Dated: 14/06/2021

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 26<sup>th</sup> 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 **May, 2021** for your kind perusal.

Kindly acknowledge receipt for the same.

With Best Regards


For **Star Cement Meghalaya Limited**

  
Authorized Signatory

**Enclosed:** As mentioned above

**STAR CEMENT**  
*Solid Setting*

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: [kolkata@starcement.co.in](mailto:kolkata@starcement.co.in)  
CIN : UG2000ML2005PLC000014

	<b>STAR CEMENT MEGHALAYA LIMITED</b> Lumshnong, Meghalaya	Reference No.	SCML/Env/F – 01
		Issue No.	1
	<b>AMBIENT AIR QUALITY MONITORING REPORT</b>	Date of Issue:	24.08.2013
		Revision No.	4
		Date of Rev.	01.12.2020

Ref: SCML/Env/AAQM/Monthly/2021-22/007

**Location of Sampling** : SCML, Lumshnong  
**Date of Sampling** : 04.05.2021 - 05.05.2021  
**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 (°C)**  
Maximum : 27.3 0C  
Minimum : 19.0 0C  
**Relative Humidity (%)**  
Maximum : 96.0 %  
Minimum : 57.0 %  
**Wind Direction** : N-S  
**Wind Speed (km/hr.)** : 10.6


Pollutants	Air Quality Monitoring Analysis Result					National Ambient Air Quality Standards Permissible Limits for Rural , Ind., Residential Area
	Station Name & No.					
	1	2	3	4	5	
	(Near Pump House) S/031/21-22	(Near Worker Colony) S/032/21-22	(Near Raw Mill Hopper) S/033/21-22	(Behind MPL DM Plant) S/034/21-22	(Near Water Reservoir) S/035/21-22	
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	
Suspended Particulate Matter (Size less than 10 µm) or PM10 µg/m3	48.7	51.2	56.2	50.2	48.7	100
Suspended Particulate Matter (Size less than 2.5 µm) or PM2.5 µg/m3	29.5	30.1	30.4	26.7	29.3	60
Sulphur Dioxide SO2 (µg/m3)	10.4	8.7	8.4	9.3	9.5	80
Nitrogen Dioxide NO2 (µg/m3)	14.5	12.4	10.2	12.4	15.2	80

**Remarks:** The parameters analyzed were found to be within the permissible limits of Ambient Air Quality Standards (National) for Rural Areas as per National Ambient Air Quality Standards, Notification dated 18th November 2009.

  
Analyzed By

  
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	<b>STAR CEMENT MEGHALAYA LIMITED</b> Lumshnong, Meghalaya	Reference No.	SCL/Env/F – 01
		Issue No.	1
	<b>AMBIENT AIR QUALITY MONITORING REPORT</b>	Date of Issue:	24.08.2013
		Revision No.	4
		Date of Rev.	01.12.2020

Ref: SCML/Env/AAQM/Monthly/2021-22/008

**Location of Sampling** : SCML, Lumshnong  
**Date of Sampling** : 06.05.2021 - 07.05.2021  
**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 (°C)**  
Maximum : 28.5 0C  
Minimum : 18.1 0C  
**Relative Humidity (%)**  
Maximum : 96.5 %  
Minimum : 61.0 %  
**Wind Direction** : NW-SE  
**Wind Speed (km/hr.)** : 7.4


Pollutants	Air Quality Monitoring Analysis Result					National Ambient Air Quality Standards Permissible Limits for Rural , Ind., Residential Area
	Station Name & No.					
	1	2	3	4	5	
	(Near Pump House) S/036/21-22	(Near Worker Colony) S/037/21-22	(Near Raw Mill Hopper) S/038/21-22	(Behind MPL DM Plant) S/039/21-22	(Near Water Reservoir) S/040/21-22	
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	
Suspended Particulate Matter (Size less than 10 µm) or PM10 µg/m3	46.7	50.3	57.1	46.7	53.8	100
Suspended Particulate Matter (Size less than 2.5 µm) or PM2.5 µg/m3	31.2	32.4	29.3	29.4	30.2	60
Sulphur Dioxide SO2 (µg/m3)	11.3	8.6	9.3	8.2	10.7	80
Nitrogen Dioxide NO2 (µg/m3)	13.8	16.2	12.3	12.7	16.8	80

**Remarks:** The parameters analyzed were found to be within the permissible limits of Ambient Air Quality Standards (National) for Rural Areas as per National Ambient Air Quality Standards, Notification dated 18th November 2009.

  
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	<b>STAR CEMENT MEGHALAYA LIMITED</b> Lumshnong, Meghalaya	Reference No.	SCL/Env/F – 01
		Issue No.	1
	<b>AMBIENT AIR QUALITY MONITORING REPORT</b>	Date of Issue:	24.08.2013
		Revision No.	4
		Date of Rev.	01.12.2020

Ref: SCML/Env/AAQM/Monthly/2021-22/009

Location of Sampling : SCML, Lumshnong  
Date of Sampling : 25.05.2021 - 26.05.2021  
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 (°C)  
Maximum : 34.5 0C  
Minimum : 23.0 0C  
Relative Humidity (%)  
Maximum : 97.1 %  
Minimum : 46.0 %  
Wind Direction : W-E  
Wind Speed (km/hr.) : 48.8


Pollutants	Air Quality Monitoring Analysis Result					National Ambient Air Quality Standards Permissible Limits for Rural , Ind., Residential Area
	Station Name & No.					
	1	2	3	4	5	
	(Near Pump House) S/041/21-22	(Near Worker Colony) S/042/21-22	(Near Raw Mill Hopper) S/043/21-22	(Behind MPL DM Plant) S/044/21-22	(Near Water Reservoir) S/045/21-22	
GPS Coordinate	25°10'42"N 92°23'32"E 919 m	25°10'46"N 92°23'17"E 932 m	25°10'45"N 92°23'29"E 923 m	25°10'44"N 92°23'50"E 897 m	25°10'45"N 92°23'53"E 893 m	
Suspended Particulate Matter (Size less than 10 µm) or PM10 µg/m3	47.3	56.1	54.3	52.3	56.2	100
Suspended Particulate Matter (Size less than 2.5 µm) or PM2.5 µg/m3	27.8	32.9	32.5	30.6	28.4	60
Sulphur Dioxide SO2 (µg/m3)	12.7	10.3	10.4	10.7	11.3	80
Nitrogen Dioxide NO2 (µg/m3)	13.9	14.8	14.6	10.5	17.3	80

**Remarks:** The parameters analyzed were found to be within the permissible limits of Ambient Air Quality Standards (National) for Rural Areas as per National Ambient Air Quality Standards, Notification dated 18th November 2009.

  
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	<b>STAR CEMENT MEGHALAYA LIMITED</b> Lumshnong, Meghalaya	Reference No.	SCL/Env/F – 01
		Issue No.	1
	<b>AMBIENT AIR QUALITY MONITORING REPORT</b>	Date of Issue:	24.08.2013
		Revision No.	4
		Date of Rev.	01.12.2020

Ref: SCML/Env/AAQM/Monthly/2021-22/010

Location of Sampling : SCML, Lumshnong  
Date of Sampling : 27.05.2021 - 28.05.2021  
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 (°C)  
Maximum : 32.5 0C  
Minimum : 23.0 0C  
Relative Humidity (%)  
Maximum : 95.3 %  
Minimum : 47.0 %  
Wind Direction : E-W  
Wind Speed (km/hr.) : 0.5

Pollutants	Air Quality Monitoring Analysis Result					National Ambient Air Quality Standards Permissible Limits for Rural , Ind., Residential Area
	Station Name & No.					
	1	2	3	4	5	
	(Near Pump House) S/046/21-22	(Near Worker Colony) S/047/21-22	(Near Raw Mill Hopper) S/048/21-22	(Behind MPL DM Plant) S/049/21-22	(Near Water Reservoir) S/050/21-22	
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	
Suspended Particulate Matter (Size less than 10 µm) or PM10 µg/m3	50.2	54.8	57.2	54.3	50.7	100
Suspended Particulate Matter (Size less than 2.5 µm) or PM2.5 µg/m3	29.6	34.7	28.8	29.7	29.0	60
Sulphur Dioxide SO2 (µg/m3)	13.4	9.5	13.8	9.6	12.8	80
Nitrogen Dioxide NO2 (µg/m3)	12.7	17.2	10.2	11.7	15.4	80

**Remarks:** The parameters analyzed were found to be within the permissible limits of Ambient Air Quality Standards (National) for Rural Areas as per National Ambient Air Quality Standards, Notification dated 18th November 2009.

  
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	<b>STAR CEMENT MEGHALAYA LIMITED</b> <b>Lumshnong, Meghalaya</b>	Reference No.	SCML/EHS/F - 02
		Issue No.	01
	<b>STACK ANALYSIS REPORT</b>	Date of Issue:	01.04.2014
		Revision No.	01
		Date of Rev.	01.06.2019

**Name of Sampling Location** : SCML, Lumshnong

**Date of Sampling** : 25/05/2021

**Type of Stack** : Lime Stone Crusher

**Stack Sampling Height (8D)** : 12 Meter

**Laboratory Report No.** : S/06/21-22

**Parameters:**

1) Particulate Matter (PM) : 25.0 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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	<b>STAR CEMENT MEGHALAYA LIMITED</b> <b>Lumshnong, Meghalaya</b>	Reference No.	SCML/EHS/F - 02
		Issue No.	01
	<b>STACK ANALYSIS REPORT</b>	Date of Issue:	01.04.2014
		Revision No.	01
		Date of Rev.	01.06.2019

**Name of Sampling Location** : SCML, Lumshnong

**Date of Sampling** : 25/05/2021

**Type of Stack** : RABH

**Stack Sampling Height (8D)** : 25 Meter

**Laboratory Report No.** : S/07/21-22

**Parameters:**

1) Particulate Matter (PM) : 30.3 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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	<b>STAR CEMENT MEGHALAYA LIMITED</b> <b>Lumshnong, Meghalaya</b>	Reference No.	SCML/EHS/F - 02
		Issue No.	01
	<b>STACK ANALYSIS REPORT</b>	Date of Issue:	01.04.2014
		Revision No.	01
		Date of Rev.	01.06.2019

**Name of Sampling Location** : SCML, Lumshnong

**Date of Sampling** : 25/05/2021

**Type of Stack** : Coal Mill

**Stack Sampling Height (8D)** : 26 Meter

**Laboratory Report No. .** : S/08/21-22

**Parameters:**

1) Particulate Matter (PM) : 24.5 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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	<b>STAR CEMENT MEGHALAYA LIMITED</b> <b>Lumshnong, Meghalaya</b>	Reference No.	SCML/EHS/F - 02
		Issue No.	01
	<b>STACK ANALYSIS REPORT</b>	Date of Issue:	01.04.2014
		Revision No.	01
		Date of Rev.	01.06.2019

**Name of Sampling Location** : SCML, Lumshnong

**Date of Sampling** : 28/05/2021

**Type of Stack** : Lime Stone Crusher

**Stack Sampling Height (8D)** : 12 Meter

**Laboratory Report No.** : S/09/21-22

**Parameters:**

1) Particulate Matter (PM) : 24.4 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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	<b>STAR CEMENT MEGHALAYA LIMITED</b> <b>Lumshnong, Meghalaya</b>	Reference No.	SCML/EHS/F - 02
		Issue No.	01
	<b>STACK ANALYSIS REPORT</b>	Date of Issue:	01.04.2014
		Revision No.	01
		Date of Rev.	01.06.2019

**Name of Sampling Location** : SCML, Lumshnong

**Date of Sampling** : 28/05/2021

**Type of Stack** : Cooler ESP

**Stack Sampling Height (8D)** : 25 Meter

**Laboratory Report No.** : S/10/21-22

**Parameters:**

1) Particulate Matter (PM) : 32.0 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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	<b>STAR CEMENT MEGHALAYA LIMITED</b> <b>Lumshnong, Meghalaya</b>	Reference No.	SCML/EHS/F - 02
		Issue No.	01
	<b>STACK ANALYSIS REPORT</b>	Date of Issue:	01.04.2014
		Revision No.	01
		Date of Rev.	01.06.2019

**Name of Sampling Location** : SCML, Lumshnong

**Date of Sampling** : 29/05/2021

**Type of Stack** : RABH

**Stack Sampling Height (8D)** : 25 Meter

**Laboratory Report No.** : S/11/21-22

**Parameters:**

1) Particulate Matter (PM) : 29.0 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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	<b>STAR CEMENT MEGHALAYA LIMITED</b> <b>Lumshnong, Meghalaya</b>	Reference No.	SCML/EHS/F - 02
		Issue No.	01
	<b>STACK ANALYSIS REPORT</b>	Date of Issue:	01.04.2014
		Revision No.	01
		Date of Rev.	01.06.2019

**Name of Sampling Location** : SCML, Lumshnong

**Date of Sampling** : 29/05/2021

**Type of Stack** : Coal Mill

**Stack Sampling Height (8D)** : 26 Meter

**Laboratory Report No.** : S/12/21-22

**Parameters:**

1) Particulate Matter (PM) : 28.6 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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	<b>STAR CEMENT MEGHALAYA LIMITED</b>	Document No.	SCML/EHS/Env/F-04
		Date of Issued	01-05-19
		Revision No.	2
	FUGITIVE EMISSION MONITORING REPORT	Revision Date	01-01-21


Ref: SCML/Env/ Fugitive/Monthly/2021-22/002

Month: May - 2021

Date	Location	Fugitive Emission Results	Limit
		(in $\mu\text{g}/\text{m}^3$ )	(in $\mu\text{g}/\text{m}^3$ )
11.05.2021	Coal Storage Section	1410	2000
11.05.2021	Limestone Storage Section	1676	5000
11.05.2021	Clinker Loading Section	1805	2000

  
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	STAR CEMENT MEGHALAYA LIMITED Lumshnong, Meghalaya				Document No.		MPL/EHS/Env/F-03		
					Effective Date		01-05-19		
	NOISE LEVEL MONITORING REPORT				Revision No.		04		
					Revision Date		01-01-21		
Ref: SCL(LM)/Env/Noise/Monthly/2021-22/002					Month:		11.05.2021		
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				75				70
1	Kiln	68.1	73.5	70.8		65.5	71.0	68.3	
2	Vertical Raw Mill	69.8	74.2	72.0		66.4	72.4	69.4	
3	Raw Mill WF	67.3	75.8	71.6		62.4	71.6	67.0	
4	Coal Mill	70.1	74.1	72.1		67.4	70.4	68.9	
5	Limestone Crusher (Dum)	71.2	72.8	72.0		62.3	75.8	69.1	
6	Additive Crusher	67.8	70.4	69.1		64.4	72.6	68.5	
B.									
1	CCR	62.8	68.4	65.6		57.1	64.7	60.9	
2	Meeting Room	67.2	68.8	68.0		61.5	64.8	63.2	
3	VP'S Room	52.4	58.7	55.6		54.2	65.9	60.1	
4	Inst. Shift Room	67.2	71.5	69.4		51.7	57.4	54.6	
5	Electrical Office	66.9	70.1	68.5		52.4	58.7	55.6	
6	QC Department	61.2	68.1	64.7		50.8	57.9	54.4	
	a)Chemical Lab	61.7	65.4	63.6		51.6	56.7	54.2	
	b)Physical Lab	64.2	70.6	67.4		50.7	56.8	53.8	
	c)XRF Lab	65.8	75.5	70.7		47.8	50.1	49.0	
	d) Sample Preparation R	69.1	71.5	70.3	51.6	47.8	49.7		
C.	Residential				55				45
1	450 Quater's	51.5	58.4	55.0		43.1	46.7	44.9	
2	Worker's Colony	49.5	58.1	53.8		42.8	45.8	44.3	



Measured By:



Verified By:

	<b>STAR CEMENT MEGHALAYA LIMITED</b> Lumshnong, Meghalaya		Reference No.	SCML/EHS/F - 04
			Issue No.	01
	<b>WATER TESTING REPORT</b>		Date of Issue:	01.11.2015
			Revision No.	03
			Date of Rev.	01.06.2019

Report No. - 02					
Date of Sample Collection: 06.05.2021 Analysis Date: 06.05.2021 to 09.05.2021					
Sl. 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	pH	Hazen	7.7	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 CaCO <sub>3</sub>	mg/lit	61.7	200	600
5	Calcium as Ca	mg/lit	17.2	75	200
6	Magnesium as Mg	mg/lit	5.8	30	100
7	Total Dissolve Solids	mg/lit	152.7	500	2000
8	Chloride	mg/lit	14.8	250	1000
9	Total Residual Chlorine	mg/lit	BDL	0.2	1
10	Turbidity	NTU	0.04	1	5
11	Iron	mg/lit	BDL	0.3	No Relaxation
12	Dissolved Oxygen	mg/lit	3.7	-	-




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	<b>STAR CEMENT MEGHALAYA LIMITED</b> Lumshnong, Meghalaya	Reference No.	SCML/EHS/F - 04
		Issue No.	01
		Date of Issue:	01.11.2015
	<b>WATER TESTING REPORT</b>	Revision No.	03
		Date of Rev.	01.06.2019

Report No. – 02				
Date of Sample Collection: 06.05.2021 Analysis Date: 06.05.2021 to 09.05.2021				
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	pH	-	7.6	5.5 to 9.0
2	Suspended Solids	mg/lit	21.8	100
3	Total Dissolve Solids	mg/lit	329.4	-
4	Cemical Oxegan Demand	mg/lit	51.7	250
5	Biochemical Oxegan Demand ( For 3 days at 27deg. C)	mg/lit	22.0	30
6	Oil& Grease	mg/lit	<3	10
7	Dissolved Oxygen	mg/lit	5.8	-

  
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