

# STAR CEMENT MEGHALAYA LIMITED

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Ref: SCML/EHS/LUM/2021-22/21

Dated: 20/10/2021

To,

The Member Secretary  
Meghalaya State Pollution Control Board  
'ARDEN', Lumpynggad,  
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 (Surface, STP, ETP) monitoring reports of **Star Cement Meghalaya Limited** for the month of **September, 2021** for your kind perusal.

This is for your kind information record please.

With Best Regards

For **Star Cement Meghalaya Limited**




Authorized Signatory



**Enclosed:** As mentioned above

**STARCEMENT**  
**Solid Setting**

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Ph: +91 33 2448 4169 / 4170 / 4693, Fax: +91 332448 4168, e-mail: [kolkata@starcement.co.in](mailto:kolkata@starcement.co.in)  
CIN : U63090ML2005PLC008011


	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/2021-22/17			Month: Sep'21	
Location of Sampling: Vishwakarma 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 <sub>10</sub> (µg/m³)	PM <sub>2.5</sub> ( µg/m³)	SO <sub>2</sub> (µg/m³)	NO <sub>2</sub> (µg/m³)
03-09-21	49.03	32.36	11.89	14.65
10-09-21	47.23	31.18	13.56	15.68
13-09-21	46.89	30.95	10.65	13.25
22-09-21	46.07	30.41	14.21	17.11
28-09-21	48.75	32.18	13.32	16.01
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 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/2021-22/18			Month: Sep'21	
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 <sub>10</sub> (µg/m³)	PM <sub>2.5</sub> ( µg/m³)	SO <sub>2</sub> (µg/m³)	NO <sub>2</sub> (µg/m³)
01-09-21	53.89	35.44	14.26	17.89
09-09-21	54.32	35.73	15.02	18.01
16-09-21	51.32	33.75	12.56	17.65
21-09-21	53.21	35.00	11.21	15.65
27-09-21	55.16	36.28	13.87	16.78
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 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/2021-22/19			Month: Sep'21	
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 <sub>10</sub> (µg/m³)	PM <sub>2.5</sub> ( µg/m³)	SO <sub>2</sub> (µg/m³)	NO <sub>2</sub> (µg/m³)
03-09-21	49.99	32.21	17.23	22.32
10-09-21	47.44	30.57	16.56	21.33
13-09-21	48.77	30.89	19.87	24.01
22-09-21	45.23	29.15	18.32	23.11
28-09-21	47.87	30.01	19.88	24.89
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 MEGHALAYA LIMITED Lumshnong, Meghalaya	Reference NO.	SCML/EHS/F -02
		Issue No.	1
		Date of issue	24.08.2013
	STACK ANALYSIS REPORT	Revision No.	4
		Date of Rev.	01.06.2019

Reference No. : S/49/2021-22  
 Date of Sampling : 03.09.2021  
 Monitoring location : Limestone Crusher  
 Sample Description : Flue gas monitoring


Analysis Results
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<b>A General Information about Stack</b>	
1 Stack connected to	Limestone Crusher
2 Material of Construction (Stack/Duct)	MS
3 Shape of Duct	Circular
4 Whether duct is provided with permanent platform & ladder	Yes
<b>B Physical characteristic of stack</b>	
1 Height of the stack from ground level (in Meter)	24.2
2 Diameter of the duct at sampling point (in Meter)	1.6
3 Height of the sampling point from ground level (in Meter)	-
4 Area of duct (in m <sup>2</sup> )	2.01
<b>C Result of Sampling &amp; Analysis of Gaseous Emission</b>	
1 Ambient Temp (°C)	25° C
2 Stack Gas Temp (°C)	48
3 Velocity of Gas (m/sec.)	12.22
4 Flow Rate (m <sup>3</sup> /Sec)	0.31
5 Quantity of of Emission (Nm <sup>3</sup> / Hr)	82082.65
6 Concentration of Particulate Matter (mg/Nm <sup>3</sup> )	14.65
7 Concentration of Sulphur di-oxide (mg/Nm <sup>3</sup> )	-
8 Concentration of Oxide of Nitrogen (mg/Nm <sup>3</sup> )	-
<b>D Pollution Control Device</b>	
1 Details of pollution control device attached to stack	Pulse Jet Bag Filter(616 Bags)
<b>F Remark</b>	

  
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	STAR CEMENT MEGHALAYA LIMITED Lumshnong, Meghalaya	Reference NO.	SCML/EHS/F -02
		Issue No.	1
		Date of issue	24.08.2013
	STACK ANALYSIS REPORT	Revision No.	4
		Date of Rev.	01.06.2019

Reference No. : S/50/2021-22  
 Date of Sampling : 03.09.2021  
 Monitoring location : Coal Mill  
 Sample Description : Flue gas monitoring


Analysis Results
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<b>A General Information about Stack</b>	
1 Stack connected to	Coal Mill
2 Material of Construction (Stack/Duct)	MS
3 Shape of Duct	Circular
4 Whether duct is provided with permanent platform & ladder	Yes
<b>B Physical characteristic of stack</b>	
1 Height of the stack from ground level (in Meter)	59.5
2 Diameter of the duct at sampling point (in Meter)	1.8
3 Height of the sampling point from ground level (in Meter)	10.38
4 Area of duct (in m <sup>2</sup> )	2.54
<b>C Result of Sampling &amp; Analysis of Gaseous Emission</b>	
1 Ambient Temp (°C)	25° C
2 Stack Gas Temp (°C)	45
3 Velocity of Gas (m/sec.)	10.92
4 Flow Rate (Nm <sup>3</sup> / sec.)	0.30
5 Quantity of gas flow (Nm <sup>3</sup> / Hr)	93663.58
6 Concentration of Particulate Matter (mg/Nm <sup>3</sup> )	19.38
7 Concentration of Sulphur di-oxide (mg/Nm <sup>3</sup> )	-
8 Concentration of Oxide of Nitrogen (mg/Nm <sup>3</sup> )	-
<b>D Pollution Control Device</b>	
1 Details of pollution control device attached to stack	Pulse Jet Bag House(1200 bags)
<b>F Remark</b>	

  
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	STAR CEMENT MEGHALAYA LIMITED Lumshnong, Meghalaya	Reference NO.	SCML/EHS/F -02
		Issue No.	1
		Date of issue	24.08.2013
	STACK ANALYSIS REPORT	Revision No.	4
		Date of Rev.	01.06.2019

Reference No. : S/51/2021-22  
 Date of Sampling : 08.09.2021  
 Monitoring location : Cooler ESP  
 Sample Description : Flue gas monitoring


Analysis Results
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<b>A General Information about Stack</b>	
1 Stack connected to	Cooler ESP
2 Material of Construction (Stack/Duct)	MS
3 Shape of Duct	Circular
4 Whether duct is provided with permanent platform & ladder	Yes
<b>B Physical characteristic of stack</b>	
1 Height of the stack from ground level (in Meter)	50.0
2 Diameter of the duct at sampling point (in Meter)	4.0
3 Height of the sampling point from ground level (in Meter)	-
4 Area of duct (in m <sup>2</sup> )	12.56
<b>C Result of Sampling &amp; Analysis of Gaseous Emission</b>	
1 Ambient Temp (°C)	25° C
2 Stack Gas Temp (°C)	56
3 Velocity of Gas (m/sec.)	11.81
4 Flow Rate (Nm <sup>3</sup> / sec.)	0.28
5 Quantity of of gas flow (Nm <sup>3</sup> / Hr)	483549.38
6 Concentration of Particulate Matter (mg/Nm <sup>3</sup> )	16.13
7 Concentration of Sulphur di-oxide (mg/Nm <sup>3</sup> )	-
8 Concentration of Oxide of Nitrogen (mg/Nm <sup>3</sup> )	-
<b>D Pollution Control Device</b>	
1 Details of pollution control device attached to stack	ESP(3 compartments)
<b>F Remark</b>	

  
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	STAR CEMENT MEGHALAYA LIMITED Lumshnong, Meghalaya	Reference NO.	SCML/EHS/F -02
		Issue No.	1
		Date of issue	24.08.2013
	STACK ANALYSIS REPORT	Revision No.	4
		Date of Rev.	01.06.2019

Reference No. : S/52/2021-22  
 Date of Sampling : 08.09.2021  
 Monitoring location : Additive Crusher  
 Sample Description : Flue gas monitoring

Analysis Results
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<b>A General Information about Stack</b>	
1 Stack connected to	Additive Crusher
2 Material of Construction (Stack/Duct)	MS
3 Shape of Duct	Circular
4 Whether duct is provided with permanent platform & ladder	Yes
<b>B Physical characteristic of stack</b>	
1 Height of the stack from ground level (in Meter)	21.0
2 Diameter of the duct at sampling point (in Meter)	1.2
3 Height of the sampling point from ground level (in Meter)	-
4 Area of duct (in m <sup>2</sup> )	1.13
<b>C Result of Sampling &amp; Analysis of Gaseous Emission</b>	
1 Ambient Temp (°C)	25.0° C
2 Stack Gas Temp (°C)	51
3 Velocity of Gas (m/sec.)	13.26
4 Flow Rate (Nm <sup>3</sup> / sec.)	0.31
5 Quantity of of gas flow (Nm <sup>3</sup> / Hr)	49614.85
6 Concentration of Particulate Matter (mg/Nm <sup>3</sup> )	13.01
7 Concentration of Sulphur di-oxide (mg/Nm <sup>3</sup> )	-
8 Concentration of Oxide of Nitrogen (mg/Nm <sup>3</sup> )	-
<b>D Pollution Control Device</b>	
1 Details of pollution control device attached to stack	Pulse Jet Bag Filter(280 Bags)
<b>F Remark</b>	

  
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	STAR CEMENT MEGHALAYA LIMITED Lumshnong, Meghalaya	Reference NO.	SCML/EHS/F -02
		Issue No.	1
		Date of issue	24.08.2013
	STACK ANALYSIS REPORT	Revision No.	4
		Date of Rev.	01.06.2019

Reference No. : S/53/2021-22  
 Date of Sampling : 10.09.2021  
 Monitoring location : RABH  
 Sample Description : Flue gas monitoring

Analysis Results
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<b>A General Information about Stack</b>	
1 Stack connected to	Kiln/Raw Mill
2 Material of Construction (Stack/Duct)	MS
3 Shape of Duct	Circular
4 Whether duct is provided with permanent platform & ladder	Yes
<b>B Physical characteristic of stack</b>	
1 Height of the stack from ground level (in Meter)	70.0
2 Diameter of the duct at sampling point (in Meter)	5.8
3 Height of the sampling point from ground level (in Meter)	23.15
4 Area of duct (in m <sup>2</sup> )	26.41
<b>C Result of Sampling &amp; Analysis of Gaseous Emission</b>	
1 Ambient Temp (°C)	25.0° C
2 Stack Gas Temp (°C)	42
3 Velocity of Gas (m/sec.)	11.75
4 Flow Rate (Nm <sup>3</sup> / sec.)	0.30
5 Quantity of of gas flow (Nm <sup>3</sup> / Hr)	1056878.37
6 Concentration of Particulate Matter (mg/Nm <sup>3</sup> )	19.03
7 Concentration of Sulphur di-oxide (mg/Nm <sup>3</sup> )	-
8 Concentration of Oxide of Nitrogen (mg/Nm <sup>3</sup> )	-
<b>D Pollution Control Device</b>	
1 Details of pollution control device attached to stack	ESP (3 compartments)
<b>F Remark</b>	

  
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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/2021-22/006


Month - Sep'21

Date	Location	Fugitive Emission Results	Limit
		(in $\mu\text{g}/\text{m}^3$ )	(in $\mu\text{g}/\text{m}^3$ )
21.09.2021	Coal Storage Section	1396	2000
21.09.2021	Limestone Storage Section	1222	5000
21.09.2021	Clinker Loading Section	1489	2000

  
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	STAR CEMENT MEGHALAYA 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

Report No. - 01				Date of sample collection: - 08.09.2021
				Date of Analysis: 08.09.2021 to 11.09.2021
Sr.No.	Parameter	Unit	ETP Inlet	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	-	7.85	-
2	Suspended Solids	mg/L	83	-
3	Total Dissolve Solids	mg/L	737	-
4	Chemical Oxygen Demand	mg/L	176.0	-
5	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	65.4	-
6	Oil & Grease	mg/L	123.9	-
7	Dissolved Oxygen	mg/L	2.6	-
8	Temperature	° C	26.4	-

  
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	STAR CEMENT MEGHALAYA 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

Report No. - 06				Date of sample collection: - 08.09.2021 Date of Analysis: 08.09.2021 to 11.09.2021
Sr.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	-	7.9	5.5 to 9.0
2	Suspended Solids	mg/L	15	100
3	Total Dissolve Solids	mg/L	743	-
4	Chemical Oxygen Demand	mg/L	28.0	250
5	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	4.0	30
6	Oil & Grease	mg/L	2.1	10
7	Dissolved Oxygen	mg/L	6.5	-
8	Temperature	° C	26.8	Shall not exceed 5.0°C above the receiving water temperature




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	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

Report No. - 06	Date of sample collection: - 11.09.2021 Date of Analysis: 11.09.2021 to 14.09.2021
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Sr.No.	Parameter	Unit	STP Inlet	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	-	7.96	-
2	Colour	Hazen	Colourless	-
3	Odour	-	Odourless	-
4	Chloride	mg/L	56.00	-
5	Total Hardness as CaCO <sub>3</sub>	mg/L	156.93	-
6	Suspended Solids	mg/L	78	-
7	Total Dissolve Solids	mg/L	259	-
8	Chemical Oxygen Demand	mg/L	275	-
9	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	140.0	-
10	Oil & Grease	mg/L	7.7	-
11	Temperature	° C	26.7	-
12	Conductivity	μS/cm	422	-




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	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

Report No. - 06	Date of sample collection: - 11.09.2021 Date of Analysis: 11.09.2021 to 14.09.2021
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Sr.No.	Parameter	Unit	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	-	7.96	5.5 to 9.0
2	Colour	Hazen	Colourless	-
3	Odour	-	Odourless	-
4	Chloride	mg/L	56.00	-
5	Total Hardness as CaCO <sub>3</sub>	mg/L	156.93	-
6	Suspended Solids	mg/L	8	100
7	Total Dissolve Solids	mg/L	259	-
8	Chemical Oxygen Demand	mg/L	38.0	250
9	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	9.0	30
10	Oil & Grease	mg/L	< 3.0	10
11	Temperature	° C	26.9	Shall not exceed 5.0°C above the receiving water temperature
12	Conductivity	μS/cm	422	-

  
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