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/2021-22/21

Dated: 20/10/2021

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 (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



Corporate Office : Satyam Tower, 3 Alipore Road, 1st 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> CIN : U63090ML2005PLC008011

			Reference No.	SCML/Env/F – 01
Ś		GHALAYA LIMITED	Issue No.	1
STARCEMENT	Lumshnong	, Meghalaya	Date of Issue:	24.08.2013
Solid Setting		MONITORING REPORT	Revision No.	5
			Date of Rev.	01.12.2020
Reference No.: SCML/ENV/A	AQM/MONTHLY/2021-22/17		Month	: Sep'21
Location of Sampling: Vishwa	akarma 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	PM10 (μg/m³)	PM₂.₅(μg/m³)	SO₂ (μg/m³)	NO₂ (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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			Reference No.	SCML/Env/F – 01
Ś		GHALAYA LIMITED	Issue No.	1
STARCEMENT	Lumshnong	g, Meghalaya	Date of Issue:	24.08.2013
Solid Setting		MONITORING REPORT	Revision No.	5
			Date of Rev.	01.12.2020
Reference No.: SCML/ENV/A	AQM/MONTHLY/2021-22/18		Month	: Sep'21
Location of Sampling: Near P	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	PM10 (μg/m³)	PM₂.₅(μg/m³)	SO₂ (μg/m³)	NO₂ (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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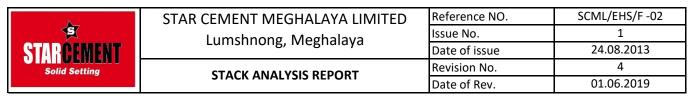
*			Reference No.	SCML/Env/F – 01
Ś		GHALAYA LIMITED	Issue No.	1
STARCEMENT	Lumshnong	r, Meghalaya	Date of Issue:	24.08.2013
Solid Setting		MONITORING REPORT	Revision No.	5
			Date of Rev.	01.12.2020
Reference No.: SCML/ENV/A	AQM/MONTHLY/2021-22/19		Month	: Sep'21
Location of Sampling: Near S	ТР	GPS Coordinate: 25°10'49"N	92°23'58"E 947 m	
Sampling Duration:	24 Hrs.	24 Hrs. 24 Hrs. 24 Hrs.		
Date of Sampling	PM10 (μg/m³)	PM₂.₅(μg/m³)	SO₂ (μg/m³)	NO₂ (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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Reference No. Date of Sampling Monitoring location : Limestone Crusher Sample Description : Flue gas monitoring

: S/49/2021-22

: 03.09.2021

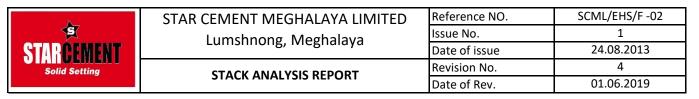
Analysis Results

Α	General Information about Stack	
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
В	Physical characteristic of stack	
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 m²)	2.01
С	Result of Sampling & Analysis of Gaseous Emission	
1	Ambient Temp (°C)	25° C
2	Stack Gas Temp (°C)	48
3	Velocity of Gas (m/sec.)	12.22
4	Flow Rate (m ³ /Sec)	0.31
5	Quantity of of Emission (Nm3/ Hr)	82082.65
6	Concentration of Particulate Matter (mg/Nm3)	14.65
7	Concentration of Sulphur di-oxide (mg/Nm3)	-
8	Concentration of Oxide of Nitrogen (mg/Nm3)	-
D	Pollution Control Device	
1	Details of pollution control device attached to stack	Pulse Jet Bag Filter(616 Bags)
F	Remark	

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

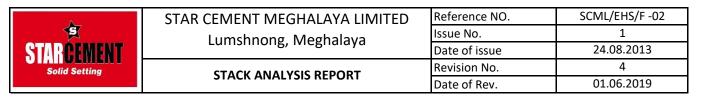
Analysis Results

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
	163
B Physical characteristic of stack	
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 m²)	2.54
C Result of Sampling & Analysis of Gaseous Emission	
1 Ambient Temp (°C)	25° C
2 Stack Gas Temp (°C)	45
3 Velocity of Gas (m/sec.)	10.92
4 Flow Rate (Nm3/ sec.)	0.30
5 Quantity of gas flow (Nm3/ Hr)	93663.58
6 Concentration of Particulate Matter (mg/Nm3)	19.38
7 Concentration of Sulphur di-oxide (mg/Nm3)	-
8 Concentration of Oxide of Nitrogen (mg/Nm3)	-
D Pollution Control Device	
1 Details of pollution control device attached to stack	Pulse Jet Bag House(1200 bags)
F Remark	

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

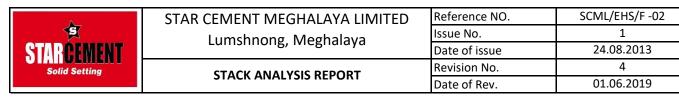
Analysis Results

A General Information about Stack	
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 Physical characteristic of stack	
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 m²)	12.56
C Result of Sampling & Analysis of Gaseous Emission	
1 Ambient Temp (°C)	25° C
2 Stack Gas Temp (°C)	56
3 Velocity of Gas (m/sec.)	11.81
4 Flow Rate (Nm3/ sec.)	0.28
5 Quantity of of gas flow (Nm3/ Hr)	483549.38
6 Concentration of Particulate Matter (mg/Nm3)	16.13
7 Concentration of Sulphur di-oxide (mg/Nm3)	-
8 Concentration of Oxide of Nitrogen (mg/Nm3)	-
D Pollution Control Device	
1 Details of pollution control device attached to stack	ESP(3 compartments)
F Remark	

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Reference No. Date of Sampling Monitoring location : Additive Crusher

: S/52/2021-22

: 08.09.2021

Sample Description : Flue gas monitoring

Analysis Results

A General Information about Stack	
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 Physical characteristic of stack	
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 ²)	1.13
C Result of Sampling & Analysis of Gaseous Emission	
1 Ambient Temp (°C)	25.0° C
2 Stack Gas Temp (°C)	51
3 Velocity of Gas (m/sec.)	13.26
4 Flow Rate (Nm3/ sec.)	0.31
5 Quantity of of gas flow (Nm3/ Hr)	49614.85
6 Concentration of Particulate Matter (mg/Nm3)	13.01
7 Concentration of Sulphur di-oxide (mg/Nm3)	-
8 Concentration of Oxide of Nitrogen (mg/Nm3)	-
D Pollution Control Device	
1 Details of pollution control device attached to stack	Pulse Jet Bag Filter(280 Bags)
F Remark	

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Reference NO. STAR CEMENT MEGHALAYA LIMITED Issue No. Lumshnong, Meghalaya Date of issue Revision No.

Date of Rev.

STACK ANALYSIS REPORT

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

Analysis Results

A General Information about Stack	
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 Physical characteristic of stack	
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 ²)	26.41
C Result of Sampling & Analysis of Gaseous Emission	
1 Ambient Temp (°C)	25.0° C
2 Stack Gas Temp (°C)	42
3 Velocity of Gas (m/sec.)	11.75
4 Flow Rate (Nm3/ sec.)	0.30
5 Quantity of of gas flow (Nm3/ Hr)	1056878.37
6 Concentration of Particulate Matter (mg/Nm3)	19.03
7 Concentration of Sulphur di-oxide (mg/Nm3)	-
8 Concentration of Oxide of Nitrogen (mg/Nm3)	-
D Pollution Control Device	
1 Details of pollution control device attached to stack	ESP (3 compartments)
F Remark	

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SCML/EHS/F -02

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24.08.2013

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01.06.2019



STAR CEMENT MEGHALAYA LIMITED

Date of Issued 01-05-19 **Revision No.** 2 01-01-21 FUJITIVE EMISSION MONITORING REPORT **Revision Date**

Document No.

Ref: SCML/Env/ Fugitive/Monthly/2021-22/006

Month - Sep'21

Date	Location	Fugitive Emission Results	Limit
		(in µg/m ³)	(in µg/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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SCML/EHS/Env/F-04

S	◆ s TARCEMENT Solid Setting	STAR CEMENT MEGHALAYA LIMITED Lumshnong, Meghalaya WATER TESTING REPORT		Reference No. Issue No. Date of Issue: Revision No. Date of Rev.	SCL/EHS/F-04 1 24.08.2013 3 01.06.2019
Report	No 01			Date of sample collect Date of Analysis: 08.0	ction: - 08.09.2021 09.2021 to 11.09.2021
Sr.No.	Parameter	Unit	ETP Inlet	Standard Norn Environm (Notification Date Consent To Ope MPCB/TB-900 (P	ns For Discharge of ent Pollution e: - 19th May 1993) & erate vide letter no. t-II)/2014- 2015/34 - , the 3rd Sep,2014
1	рН	-	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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STARCEMENT		STAR CEMENT M	EGHALAYA LIMITED	Reference No.	SCL/EHS/F-04
				Issue No.	1
		Lumsnnon	Lumshnong, Meghalaya		24.08.2013
	Solid Setting		STING REPORT	Revision No.	3
		WATER TE		Date of Rev.	01.06.2019
Report	No 06			Date of sample colle Date of Analysis: 08.	ction: - 08.09.2021 09.2021 to 11.09.2021
Sr.No.	Parameter	Unit	ETP Outlet	Environn (Notification Dat Consent To Op MPCB/TB-900 (F	ns For Discharge of nent Pollution e: - 19th May 1993) & erate vide letter no. Pt-II)/2014- 2015/34 - ;, the 3rd Sep,2014
1	рН	-	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		above the receiving water perature

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÷.	STAR CEMENT MEGHALAYA LIMITED	Reference No.	SCML/EHS/F-04
		Issue No.	1
STARCEMENT	Lumshnong, Meghalaya	Date of Issue:	24.08.2013
Solid Setting	WATER TESTING REPORT	Revision No.	3
	WATER TESTING REPORT	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		
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	рΗ	_	7.96	
	r			
2	Colour	Hazen	Colourless	-
3	Odour	-	Odourless	-
4	Chloride	mg/L	56.00	-
5	Total Hardness as CaCO₃	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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<u> </u>	STAR CEMENT MEGHALAYA LIMITED	Reference No.	SCML/EHS/F-04
STARCEMENT		Issue No.	1
	Lumshnong, Meghalaya	Date of Issue:	24.08.2013
	WATER TESTING REPORT	Revision No.	3
	WATER TESTING REPORT	Date of Rev	01 06 2019

Report	No 06	Date of sample collection: - 11.09.2021		
	1	Date of Analysis: 11.09.2021 to 14.09.2021		
	Parameter	Unit	STP Outlet	Standard Norms For Discharge of
Sr.No.				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	-	7.96	5.5 to 9.0
2	Colour	Hazen	Colourless	-
3	Odour	-	Odourless	-
4	Chloride	mg/L	56.00	-
5	Total Hardness as CaCO₃	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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