

	STAR CEMENT LIMITED Lumshnong, Meghalaya		Reference No.	SCL/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.: SCL/ENV/AAQM/MONTHLY/2021-22/26			Month: Oct'21		
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)	
01-10-2021	44.98	29.86	9.96	15.92	
07-10-2021	46.51	30.88	10.22	16.33	
09-10-2021	41.01	27.23	8.79	14.04	
14-10-2021	42.66	28.33	11.59	18.55	
16-10-2021	41.11	27.30	10.16	16.23	
23-10-2021	45.82	30.34	9.89	15.94	
26-10-2021	40.37	26.73	8.48	13.67	
29-10-2021	40.45	26.78	9.81	15.83	
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 – 01
			Issue No.	1
			Date of Issue:	24.08.2013
	AMBIENT AIR QUALITY MONITORING REPORT		Revision No.	5
			Date of Rev.	01.12.2020
Reference No.: SCL/ENV/AAQM/MONTHLY/2021-22/27			Month: Oct'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 ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
01-10-2021	53.55	35.29	14.32	17.91
07-10-2021	53.98	35.57	15.07	18.03
09-10-2021	51.01	33.62	12.63	17.67
14-10-2021	52.88	34.85	11.30	15.69
16-10-2021	54.81	36.12	13.93	16.81
23-10-2021	53.33	35.11	14.81	17.74
26-10-2021	50.39	33.17	12.40	17.39
29-10-2021	52.24	34.39	11.08	15.43
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.


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	STAR CEMENT LIMITED Lumshnong, Meghalaya		Reference No.	SCL/Env/F – 01	
			Issue No.	1	
			Date of Issue:	24.08.2013	
	AMBIENT AIR QUALITY MONITORING REPORT		Revision No.	5	
			Date of Rev.	01.12.2020	
Reference No.: SCL/ENV/AAQM/MONTHLY/2021-22/28			Month: Oct'21		
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)	
01-10-2021	55.29	34.96	23.61	29.47	
07-10-2021	53.12	32.41	20.32	25.35	
09-10-2021	55.26	35.99	21.22	26.47	
14-10-2021	51.33	30.91	22.40	27.94	
16-10-2021	55.28	34.41	22.62	28.23	
23-10-2021	52.45	31.95	19.98	24.96	
26-10-2021	54.57	35.49	20.87	26.07	
29-10-2021	50.68	30.46	22.04	27.53	
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.


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	STAR CEMENT LIMITED Lumshnong, Meghalaya		Reference No.	SCL/Env/F – 01
			Issue No.	1
			Date of Issue:	24.08.2013
	AMBIENT AIR QUALITY MONITORING REPORT		Revision No.	5
Date of Rev.			01.12.2020	
Reference No.: Tongseng Village V/2021-22/003			Month: Oct'21	
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)
22.10.2021	44.98	28.86	6.67	9.68
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.


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	STAR CEMENT LIMITED Lumshnong, Meghalaya	Reference No.	SCL/Env/F-02
		Issue No.	1
		Date of Issue	01.05.2019
	STACK EMISSION MONITORING ANALYSIS REPORT	Revision No.	5
		Date of Rev.	01.06.2021

Report No: SCL/Env/Stack/Monthly/2020-21/49

Month: October'21

Analysis Result

A. General Information About Stack							
1	Stack Identification No	S-1	S-2	S-3	S-4	S-5	S-6
2	Stack Connected to	Kiln/Raw Mill	Coal Mill	Cooler	Roller Press	Cement Mill	Packing Plant
3	Material of Construction (Stack/Duct)	Mild Steel	Mild Steel	Mild Steel	Mild Steel	Mild Steel	Mild Steel
4	Shape of duct	Circular	Circular	Circular	Circular	Circular	Circular
5	Whether duct is provided with permanent platform & ladder	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
2	Duct diameter at sampling point (meter)	3	1.2	2.8	1.4	1.5	1.1
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
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
D. Result of Sampling & Analysis of Gaseous Emission							
1	Date of Sampling	28.10.2021	30.10.2021	28.10.2021	06.10.2021	12.10.2021	01.10.2021
2	Ambient Temp (°C)	25	25	25	25	25	25
3	Stack Gas Temp (°C)	191	70	315	41	118	47
4	Exit Velocity of Gas (m/sec.)	17.10	12.90	17.41	11.63	12.69	11.44
5	Flow Rate (Nm ³ / sec.)	0.30	0.75	0.26	0.28	0.25	0.30
6	Quantity of Emission (Nm ³ / Hr)	258276.90	41680.10	179164.70	56729.29	56935.27	33874.30
7	Concentration of PM (mg/Nm ³)	23.12	24.66	23.81	13.62	16.08	16.07
8	Concentration of SO ₂ (mg/Nm ³)	335.26	-	-	-	-	-
9	Concentration of NO _x (mg/Nm ³)	253.47	-	-	-	-	-
10	Oxygen (O ₂) (%)	8.55	8.33	9.00	8.00	9.00	8.00
E.	Remarks						

Standard

PM - 30 mg/Nm ³	SO ₂ - 1000 mg/Nm ³	NO _x - 800 mg/Nm ³
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Particulate Matter (PM), Sulphur di-oxide (SO₂), Oxide of Nitrogen (Nox), Electro Static Precipitator (ESP)

 Analysis by	 Checked by	 Authorized Signatory
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	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/2021-22/007

Month - Oct'21

Date	Location	Fugitive Emission Results	Limit
		(in $\mu\text{g}/\text{m}^3$)	(in $\mu\text{g}/\text{m}^3$)
13.10.2021	Coal Storage Section	1438	2000
13.10.2021	Limestone Storage Section	1576	5000
13.10.2021	Cement Packing Plant	1723	5000


Analyzed By


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	STAR CEMENT 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. - 02	Date of sample collection: - 07.10.2021 Date of Analysis: 07.10.2021 to 10.10.2021
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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	-	7.12	-
2	Suspended Solids	mg/L	77	-
3	Total Dissolve Solids	mg/L	751	-
4	Chemical Oxygen Demand	mg/L	759.0	-
5	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	64.4	-
6	Oil & Grease	mg/L	120.5	-
7	Dissolved Oxygen	mg/L	2.8	-
8	Temperature	° C	25.0	-


 Analysis By


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 STAR CEMENT Solid Setting	STAR CEMENT 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. - 07				Date of sample collection: - 07.10.2021
				Date of Analysis: 07.10.2021 to 10.10.2021
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	-	7.7	5.5 to 9.0
2	Suspended Solids	mg/L	14	100
3	Total Dissolve Solids	mg/L	735	-
4	Chemical Oxygen Demand	mg/L	27.6	250
5	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	3.9	30
6	Oil & Grease	mg/L	1.97	10
7	Dissolved Oxygen	mg/L	6.3	-
8	Temperature	° C	25.44	Shall not exceed 5.0°C above the receiving water temperature



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	STAR CEMENT 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. -07				Date of sample collection: - 12.10.2021	
				Date of Analysis: 12.10.2021 to 15.10.2021	
Sr.No.	Parameter	Unit	Nala Inlet	Nala Outlet	Standards norms as per IS 2296
1	pH	-	7.96	7.73	6.5 - 8.5
2	Colour	Hazen	Colourless	Colourless	300
3	Odour	-	Unobjectionable	Unobjectionable	Unobjectionable
4	Chloride	mg/L	5.60	5.98	-
5	Total Hardness as CaCO ₃	mg/L	146.69	147.71	300
6	Suspended Solids	mg/L	12.73	13.86	-
7	Total Dissolve Solids	mg/L	215	14.71	500
8	Chemical Oxygen Demand	mg/L	ND	ND	-
9	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	ND	ND	2.0
10	Oil & Grease	mg/L	ND	ND	-
11	Temperature	° C	25.69	26.28	-
12	Conductivity	μS/cm	327	324	-


Analysis By


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	STAR CEMENT LIMITED		Reference No.	SCL/EHS/F-04
			Issue No.	1
	Lumshnong, Meghalaya		Date of Issue:	24.08.2013
	WATER TESTING REPORT		Revision No.	3
			Date of Rev.	01.06.2019

Report No. - 07	Date of sample collection: - 07.10.2021
	Date of Analysis: 07.10.2021 to 10.10.2021

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	pH	-	7.80	-
2	Colour	Hazen	Colourless	-
3	Odour	-	Odourless	-
4	Chloride	mg/L	55.34	-
5	Total Hardness as CaCO ₃	mg/L	155.26	-
6	Suspended Solids	mg/L	77.12	-
7	Total Dissolve Solids	mg/L	256	-
8	Chemical Oxygen Demand	mg/L	256	-
9	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	138.5	-
10	Oil & Grease	mg/L	7.5	-
11	Temperature	° C	26.3	-
12	Conductivity	μS/cm	417.68	-



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	STAR CEMENT LIMITED	Reference No.	SCL/EHS/F-04
		Issue No.	1
	Lumshnong, Meghalaya	Date of Issue:	24.08.2013
	WATER TESTING REPORT	Revision No.	3
		Date of Rev.	01.06.2019

Report No. - 07	Date of sample collection: - 07.10.2021
	Date of Analysis: 07.10.2021 to 10.10.2021

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	-	7.91	5.5 to 9.0
2	Colour	Hazen	Colourless	-
3	Odour	-	Odourless	-
4	Chloride	mg/L	55.00	-
5	Total Hardness as CaCO ₃	mg/L	149.20	-
6	Suspended Solids	mg/L	7.8	100
7	Total Dissolve Solids	mg/L	251	-
8	Chemical Oxygen Demand	mg/L	37.5	250
9	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	8.8	30
10	Oil & Grease	mg/L	< 3.0	10
11	Temperature	° C	26.5	Shall not exceed 5.0°C above the receiving water temperature
12	Conductivity	μS/cm	418.6	-


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