

 STARCEMENT <i>Solid Setting</i>	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/2021-22/35			Month:March'22		
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.	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)	
01.03.2022	47.50	23.25	9.35	16.73	
03.03.2022	43.90	25.64	9.50	15.00	
08.03.2022	43.54	24.50	11.27	16.75	
10.03.2022	49.34	27.34	10.32	14.00	
11.03.2022	43.00	26.45	11.50	15.75	
15.03.2022	46.87	23.05	9.00	16.35	
17.03.2022	45.00	28.24	11.01	17.85	
22.03.2022	44.67	27.15	8.67	13.68	
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.


 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/2021-22/36			Month:March'22		
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.	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)	
01.03.2022	51.25	35.17	11.70	17.05	
03.03.2022	49.98	33.56	14.64	15.24	
08.03.2022	50.37	34.92	12.20	16.52	
10.03.2022	54.84	31.45	11.98	13.34	
11.03.2022	50.00	30.54	11.25	16.27	
15.03.2022	51.75	35.00	13.00	17.00	
17.03.2022	52.20	33.41	10.52	13.50	
22.03.2022	49.50	32.85	14.00	14.58	
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/2021-22/37			Month:March'22		
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.	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)	
01.03.2022	74.80	44.80	20.55	26.31	
03.03.2022	69.45	40.00	21.57	27.34	
08.03.2022	71.68	46.34	22.03	25.32	
10.03.2022	75.67	44.67	21.48	24.25	
11.03.2022	73.00	42.50	20.00	23.50	
15.03.2022	74.50	44.87	18.32	24.36	
17.03.2022	76.25	46.25	20.48	24.34	
22.03.2022	72.36	43.54	19.57	22.25	
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/2021-22/008			Month:March'22		
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)	
03.03.2022	44.23	21.52	10.35	13.50	
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
	STACK EMISSION MONITORING ANALYSIS REPORT							Date of Issue	01.05.2019
								Revision No.	5
							Date of Rev.	01.06.2021	

Report No: SCL/ENV/STACK/MONTHLY/2021-22/54							Month: March'22		
Analysis Result									
A. General Information About Stack									
1	Stack Identification No	S-1	S-2	S-3	S-4	S-5	S-6	S-7	S-8
2	Stack Connected to	Kiln/Raw Mill	Coal Mill	Cooler	Roller Press	Cement Mill	Packing Plant	Primary Crusher	Secondary Crusher
3	Material of Construction (Stack/Duct)	Mild Steel	Mild Steel	Mild Steel	Mild Steel	Mild Steel	Mild Steel	Mild Steel	Mild Steel
4	Shape of duct	Circular	Circular	Circular	Circular	Circular	Circular	Circular	Circular
5	Whether duct is provided with permanent platform & ladder	Yes	Yes	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	21	17
2	Duct diameter at sampling point (meter)	3	1.2	2.8	1.4	1.5	1.1	1.2	1.0
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	1.13	0.79
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	Bag Filter	Bag Filter
D. Result of Sampling & Analysis of Gaseous Emission									
1	Date of Sampling	21.03.2022	11.03.2022	08.03.2022	15.03.2022	23.03.2022	17.03.2022	01.03.2022	04.03.2022
2	Ambient Temp (°C)	33	27	40	25	28	25	28	25
3	Stack Gas Temp (°C)	150	80	350	35	35	39	36	34
4	Exit Velocity of Gas (m/sec.)	13.89	13.65	19.51	14.58	13.45	13.76	14.94	12.34
5	Flow Rate (Nm ³ / sec.)	63.52	12.22	54.69	19.92	21.21	11.66	15.11	8.88
6	Quantity of Emission (Nm ³ / Hr)	228683.62	43979.66	196881.01	71707.27	76355.04	41974.34	54387.50	31967.78
7	Concentration of PM (mg/Nm ³)	17.56	17.82	14.01	18.56	20.48	22.19	23.56	20.58
8	Concentration of SO ₂ (mg/Nm ³)	660.00	-	-	-	-	-	-	-
9	Concentration of NO _x (mg/Nm ³)	228.00	-	-	-	-	-	-	-
10	Oxygen (O ₂) (%)	9.8	8.59	10.74	8.65	10.33	8.65	10.12	11.45
E. Remarks									
Standard									
PM - 30 mg/Nm ³			SO ₂ - 1000 mg/Nm ³				NO _x - 800 mg/Nm ³		
Particulate Matter (PM), Sulphur di-oxide (SO ₂), Oxide of Nitrogen (Nox), Electro Static Precipitator (ESP)									
 Analysis by  Checked by  Authorized Signatory									

	STAR CEMENT LIMITED				Document No.		SCL/EHS/Env/F-03		
	Lumshnong, Meghalaya				Effective Date		01-05-2019		
					Revision No.		04		
	NOISE LEVEL MONITORING REPORT				Revision Date		01-01-2021		
Ref: SCL(LM)/ENV/NOISE/MONTHLY/2021-22/007							Date: 15.03.2022		
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								
1	Kiln	64.1	71.2	67.7	75	62.3	68.0	65.2	70
2	Raw Mill	61.3	71.3	66.3		55.7	65.7	60.7	
3	Raw Mill WF	64.8	71.5	68.2		61.3	67.0	64.2	
4	Coal Mill	62.8	71.6	67.2		58.7	67.8	63.3	
5	Cement Mill	64.8	70.6	67.7		58.9	64.7	61.8	
6	Cement Mill WF	64.7	72.6	68.7		56.7	68.4	62.6	
7	Primary Crusher (Dump Hopper)	61.9	71.9	66.9		58.1	64.7	61.4	
8	Primary Crusher (Near BC-1)	64.3	73.5	68.9		56.3	69.1	62.7	
9	Secondary Crusher	62.5	72.6	67.6		55.1	67.6	61.4	
B.	DG House								
1	Control Room	60.1	73.5	66.8	75	58.4	65.2	61.8	70
2	Office	62.5	72.8	67.7		58.1	70.1	64.1	
C.	Offices								
1	CCR	51.6	62.3	57.0	75	45.1	49.5	47.3	70
2	Meeting Room	52.4	61.3	56.8		46.5	50.3	48.4	
3	VP'S Room	46.7	50.3	48.5		49.5	51.6	50.6	
4	Inst. Shift Room	50.3	51.2	50.8		45.6	50.7	48.2	
5	Drawing Office	52.4	61.3	56.8		47.6	52.3	50.0	
6	QC Department								
	a) Chemical Lab	62.5	65.2	63.9		56.3	61.6	59.0	
	b) Physical Lab	62.8	65.5	64.2		57.6	60.9	59.3	
	c) Shift Lab	58.5	64.2	61.4		55.4	59.0	57.2	
	d) Sample Preparation Room	58.4	63.8	61.1		44.6	48.3	46.5	
D.	Residential								
1	Bachelor Hostel	48.4	51.5	50.0	55	37.2	41.8	39.5	45
2	HOD'S Quater's	42.0	53.5	47.8		39.4	42.9	41.2	
3	650 Quater's	44.0	55.0	49.5		37.1	43.7	40.4	
4	250 Quater's	46.6	51.0	48.8		40.0	43.3	41.6	
5	Hut	48.6	51.8	50.2		42.1	43.4	42.8	
E.	Dispensery	46.3	50.0	48.2		39.5	42.2	40.9	


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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/2021-22/012

Month - March' 2022

Date	Location	Fugitive Emission Results	Limit
		(in $\mu\text{g}/\text{m}^3$)	(in $\mu\text{g}/\text{m}^3$)
04.03.2022	Coal Storage Section	1499	2000
04.03.2022	Limestone Storage Section	1652	5000


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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. - 12

Date of sample collection: - 11.03.2022

Date of Analysis: 11.03.2022 to 14.03.2022

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	-	7.20	-
2	Colour	Hazen	Colourless	-
3	Odour	-	Odourless	-
4	Chloride	mg/L	60.4	-
5	Total Hardness as CaCO ₃	mg/L	145.8	-
6	Suspended Solids	mg/L	80.3	-
7	Total Dissolve Solids	mg/L	250	-
8	Chemical Oxygen Demand	mg/L	290	-
9	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	170.5	-
10	Oil & Grease	mg/L	8.9	-
11	Temperature	° C	24.5	-
12	Conductivity	μS/cm	440.0	-


Analysis By


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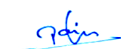
	STAR CEMENT LIMITED Lumshnong, Meghalaya	Reference No.	SCL/EHS/F-04
		Issue No.	1
	WATER TESTING REPORT	Date of Issue:	24.08.2013
		Revision No.	3
		Date of Rev.	01.06.2019

Report No. - 12

Date of sample collection: - 11.03.2022

Date of Analysis: 11.03.2022 to 14.03.2022

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	-	7.40	5.5 to 9.0
2	Colour	Hazen	Colourless	-
3	Odour	-	Odourless	-
4	Chloride	mg/L	50.6	-
5	Total Hardness as CaCO ₃	mg/L	140.7	-
6	Suspended Solids	mg/L	9.4	100
7	Total Dissolve Solids	mg/L	290	-
8	Chemical Oxygen Demand	mg/L	35.5	250
9	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	7.2	30
10	Oil & Grease	mg/L	< 3.0	10
11	Temperature	° C	24.5	Shall not exceed 5.0°C above the receiving water temperature
12	Conductivity	μS/cm	472	-


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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. -12

Date of sample collection: - 04.03.2022

Date of Analysis: 04.03.2022 to 07.03.2022

Sr.No.	Parameter	Unit	Nala Up Stream	Nala Down Stream	Standards norms as per IS 2296
1	pH	-	7.35	7.2	6.5 - 8.5
2	Colour	Hazen	Colourless	Colourless	300
3	Odour	-	Unobjectionable	Unobjectionable	Unobjectionable
4	Chloride	mg/L	140.0	143.5	-
5	Total Hardness as CaCO ₃	mg/L	15.1	13.8	300
6	Suspended Solids	mg/L	83.6	80.1	-
7	Total Dissolve Solids	mg/L	85	83.1	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	24.9	24.9	-
12	Conductivity	µS/cm	330.20	325.4	-


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