



CIN : L26942OR1005PLC001557

# SHIVA CEMENT LIMITED

P-25, CIVIL TOWNSHIP  
ROURKELA-769004  
ODISHA, INDIA

SCL/6000-08

09.12.2020

To  
The Member Secretary  
State Pollution Control Board, Odisha  
{Department of Forest & Environment, Govt. of Odisha}  
ParibeshBhawan, A/118, Nilakantha Nagar,  
Unit-VIII, Bhubaneswar-751 012

Sub : Environment Monitoring Reports for November-2020.

Dear Sir,

Please find attached herewith the Environment Monitoring Report for the month of November-2020.

Thanking you

Yours Faithfully  
For Shiva Cement Limited

(Anil Mishra)  
Unit Head

Encl : As above.

Copy to :  
The Regional Officer  
OSPCB, Rourkela

**ENVIRONMENTAL MONITORING REPORT  
FOR THE MONTH OF NOVEMBER  
2020**

---

**At the request of:**

**M/S. SHIVA CEMENT LIMITED**

Teleghana, P.o. – Kutra, Dist.- Sundardarb  
(Odisha)

\*\*\*\*\*

**Conducted By:**



**M/s. MITRA S.K. PRIVATE LIMITED**

At/Po – Barbil  
Dist.- : Keonjhar, (Odisha)  
Pin - 758035.

A/P.O. BARBIL, Ward No-6  
Dist.: Keonjhar, Odisha - 758035  
CIN: U51909WB1956PTC023037

T : +91 84370 08615, 84370 08620, 84370 75299  
E : barbil@mitrask.co.in  
W : www.mitrask.com

Ref. No. BBL/ENV/2235

DATE: 03/12/2020

## ANALYSIS REPORT OF AMBIENT AIR

Name of the Mines : M/s. SHIVA CEMENT LIMITED

Address : Teleghana, Kutra, Dist. Sundargarh (Odisha)

Sl. No.	Date of Monitoring	Location	Concentration of Pollutants				
			PM <sub>10</sub> ( $\mu\text{g}/\text{m}^3$ )	PM <sub>2.5</sub> ( $\mu\text{g}/\text{m}^3$ )	SO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	NO <sub>2</sub> ( $\mu\text{g}/\text{m}^3$ )	CO ( $\text{mg}/\text{m}^3$ )
1	18/19.11.2020	Main Gate	59.3	33.2	6.8	21.2	0.33
2	18/19.11.2020	Office Building	66.4	36.5	6.6	20.4	0.28
3	18/19.11.2020	Kiln Area	71.0	39.7	7.2	22.3	0.37
Limit as per CPCB notification, New Delhi, 18th Nov, 2009, for Ambient air quality			100	60	80	80	2
Sampling and Analysis done according to			IS: 5182 (Part-23)-1999	USEPA CFR-40, Part-50, Appendix-L	IS: 5182 (Part-2)-2001	IS: 5182 (Part-6)-2006	IS 5182 : Part.10-1999
Barometric pressure (mm of Hg):750			Temperature °C: 18-34		Climatic condition: Clear & Sunny		

Checked by:-




For Mitra S. K. Private Limited

Authorised Signatory

Ref No./BBL/ENV/2236

Date: 03/12/2020

## CERTIFICATE OF NOISE MONITORING

Name of the Mines : M/s. SHIVA CEMENT LIMITED

Address : Teleghana, Kutra, Dist. Sundargarh (Odisha)

SL. NO.	Monitoring Location	Date Monitoring	Noise Level in dB (A)		
			Ld	Ln	Ldn
1.	Crusher	18/19.11.2020	69.7	56.3	62.1
2.	Raw Mill	18/19.11.2020	67.2	54.4	57.8
3.	Coal mill	18/19.11.2020	67.1	54.8	58.9
4.	Cement Mill	18/19.11.2020	68.6	58.2	60.7
5.	Main Gate	18/19.11.2020	58.5	45.3	49.5
6.	Colony	18/19.11.2020	52.8	38.9	43.5

Note : Day Time : 6.00 AM -10.00 PM, Night Time: 10.00PM- 6.00AM

### AMBIENT AIR QUALITY STANDARDS IN RESPECT OF NOISE AS PER CPCB GUIDELINES

AREA CODE	CATEGORY OF AREA / ZONE	LIMITS IN dB (A)	
		DAY TIME	NIGHT TIME
A	INDUSTRIAL AREA	75	70
B	COMMERCIAL AREA	65	55
C	RESIDENTIAL AREA	55	45
D	SILENCE ZONE	50	40

Checked by:- 



For Mitra S. K. Private Limited

  
Authorised Signatory

# Mitra S. K. Private Limited

Adf. O. BARBIL, Ward No.6  
Dist: Keonjhar, Odisha - 758035  
CIN: U51508NP1982PT020077

T : +91 34370 09615, 94370 09620, 94370 75269  
E : msk@msk.com  
W : www.msk.com

Ref.No.BBL/ENV/2237



Date: 03.12.2020

<b>ANALYSIS REPORT OF FLUE GAS</b>		
<b>Name of the industry</b>	: M/s. SHIVA CEMENT LIMITED	
<b>Address</b>	: Teleghana, Kutra, Dist. Sundargarh (Odisha)	
<b>Date &amp; time of sampling</b>	: 18/11/2020 AT 01.00 PM	
<b>A. General information about stack</b>		
1 Stack connected to	: Rotary Kiln	
2 Emission due to	: Burning of Clinker	
3 Material of construction of Stack	: MS	
4 Shape of Stack	: Circular	
5 Whether stack is provided with permanent platform & Ladder	: Yes	
6 Generation Capacity	: ---	
<b>B. Physical characteristics of stack</b>		
1 Height of the stack from ground level	: 45.0 m	
2 Diameter of the stack at sampling point	: 1.25 m	
3 Height of the sampling point from Ground Level	: 33 m	
4 Area of Stack	: 1.2277m <sup>2</sup>	
<b>C. Analysis/Characteristic of stack</b>		
1 Fuel used	Coal	2. Fuel consumption : 3MT/Hrs
<b>D. Results of sampling &amp; analysis of gaseous emission</b>		
	<b>Result</b>	<b>Method</b>
1 Temperature of emission (°C)	: 157	EPA Part 2
2 Barometric pressure (mm of Hg)	: 750	EPA Part 2
3 Velocity of gas (m/sec)	: 13.31	EPA Part 2
4 Quantity of gas flow (Nm <sup>3</sup> /hr.)	: 37856	EPA Part 2
5 Concentration of Carbonmonoxide(%)	: ~0.2	USEPA 18 -25/09/1996
6 Concentration of Carbon dioxide(%)	: 9.6	IS 13270:1992,Ref:2009
7 Concentration of Sulphur dioxide (mg/Nm <sup>3</sup> )	: 45.1	GC
8 Concentration of Nitrogen dioxide (mg/Nm <sup>3</sup> )	: 24.6	EPA Part-7
9 Concentration of Particulate Matters (mg/Nm <sup>3</sup> )	: 25.8	EPA Part-5
<b>E. Pollution control device</b>		
Details of pollution control devices attached with the stack		: Bag Filter

Checked by:



For Mitra S. K. Private Limited

Authorized Signatory

H. O.: Shradhi Centre (5th Floor), 74B, Acharya Jagadish Chandra Bose Road, Kolkata - 700 018, West Bengal, India  
T: 91 33 22172249 / 4014 3000 / 2295 0006 / 2265 0007 F: 91 33 2265 0008 E: info@msk.com W: www.msk.com

# Mitra S. K. Private Limited

ADP/O. BARBIL, Ward No-6  
Dist.: Keonjhar, Odisha - 758036  
CIN: U51908WB1964PTC023037

T : +91 94370 09815, 94370 09820, 94370 70269  
E : barbil@mitrask.co.in  
W : www.mitrask.com



Ref.No.BBL/ENV/2238

Date: 03.12.2020

<b>ANALYSIS REPORT OF FLUE GAS</b>	
<b>Name of the industry</b>	: M/s. SHIVA CEMENT LIMITED
<b>Address</b>	: Teleghana, Kutra, Dist. Sundargarh (Odisha)
<b>Date &amp; time of sampling</b>	: 19/11/2020 AT 03.00 PM
<b>A. General information about stack</b>	
1 Stack connected to	: Raw Mill Bag Filter
2 Emission due to	: Raw Mix Grinding
3 Material of construction of Stack	: MS
4 Shape of Stack	: Circular
5 Stack is provided with permanent platform & Ladder	: Yes
6 Generation Capacity	: ---
<b>B. Physical characteristics of stack</b>	
1 Height of the stack from ground level	: 45.0 m
2 Diameter of the stack at sampling point	: 1.05 m
3 Height of the sampling point from Ground Level	: 34 m
4 Area of Stack	: 8662 m <sup>2</sup>
<b>C. Analysis/Characteristic of stack</b>	
1 Fuel used : Kiln Hot Gas	2. Fuel consumption : ---
<b>D. Results of sampling &amp; analysis of gaseous emission</b>	
	<b>Result</b> <b>Method</b>
1 Temperature of emission (°C)	: 59      EPA Part 2
2 Barometric pressure (mm of Hg)	: 750      EPA Part 2
3 Velocity of gas (m/sec)	: 13.70      EPA Part 2
4 Quantity of gas flow (Nm <sup>3</sup> /hr.)	: 36367      EPA Part 2
5 Concentration of Carbonmonoxide(%)	: <0.2      USEPA 18 -25/09/1996
6 Concentration of Carbon dioxide(%)	: 2.0      IS 13270:1992,Ref:2009
7 Concentration of Sulphur dioxide (mg/Nm <sup>3</sup> )	: 18.2      GC
8 Concentration of Nitrogen dioxide (mg/Nm <sup>3</sup> )	: 10.4      EPA Part-7
9 Concentration of Particulate Matters (mg/Nm <sup>3</sup> )	: 28.6      EPA Part-5
<b>E. Pollution control device</b>	
Details of pollution control devices attached with the stack	: Bag Filter

Checked by:-



For Mitra S. K. Private Limited

Authorised Signatory

H. O.: Shrachi Centre (5th Floor), 74B, Acharya Jagadish Chandra Bose Road, Kolkata - 700 016, West Bengal, India

T: 91 33 22172249 / 4014 3000 / 2285 0006 / 2285 0007 F: 91 33 2285 0008 E: info@mitrask.com W: www.mitrask.com

# Mitra S. K. Private Limited

ADP O: BARBIL Ward No-8  
Dist: Keonjhar, Odisha - 758035  
CIN: U51902WB1968PTC023037

T : +91 9437008615, 9437008620, 94370 75200  
E : barbil@mitrask.com  
W : www.mitrask.com



Ref.No.BBL/ENV/2239

Date: 03.12.2020

<b>ANALYSIS REPORT OF FLUE GAS</b>		
<b>Name of the industry</b>	: M/s. SHIVA CEMENT LIMITED	
<b>Address</b>	: Teleghana, Kutra, Dist. Sundargarh (Odisha)	
<b>Date &amp; time of sampling</b>	: 19/11/2020 AT 05.30PM	
<b>A. General information about stack</b>		
1. Stack connected to	: Coal Mill Bag Filter	
2. Emission due to	: Coal Grinding	
3. Material of construction of Stack	: MS	
4. Shape of Stack	: Circular	
5. Whether stack is provided with permanent platform & Ladder	: Yes	
6. Generation Capacity	: ---	
<b>B. Physical characteristics of stack</b>		
1. Height of the stack from ground level	: 31.0 m	
2. Diameter of the stack at sampling point	: 0.68 m	
3. Height of the sampling point from Ground Level	: 24 m	
4. Area of Stack	: 0.3633 m <sup>2</sup>	
<b>C. Analysis/Characteristic of stack</b>		
1. Fuel used	Kiln Hot Gas	2. Fuel consumption : ---
<b>D. Results of sampling &amp; analysis of gaseous emission</b>		
	<b>Result</b>	<b>Method</b>
1. Temperature of emission (°C)	: 45	EPA Part 2
2. Barometric pressure (mm of Hg)	: 750	EPA Part 2
3. Velocity of gas (m/sec)	: 9.03	EPA Part 2
4. Quantity of gas flow (Nm <sup>3</sup> /hr.)	: 10395	EPA Part 2
5. Concentration of Particulate Matters (mg/Nm <sup>3</sup> )	: 27.3	EPA Part-5
<b>E. Pollution control device</b>		
Details of pollution control devices attached with the stack	: Bag Filter	

Checked by:-



For Mitra S. K. Private Limited

Authorized Signatory

H. O.: Sbrachi Centre (5th Floor), 74B, Acharya Jagadish Chandra Bose Road, Kolkata - 700 018, West Bengal, India

T: 91 33 22172240 / 4014 3000 / 2265 0000 / 2265 0007 F: 91 33 2265 0008 E: info@mitrask.com W: www.mitrask.com

# Mitra S. K. Private Limited

AMP. U. BARBIL Ward No-6  
Dist.: Keonjhar, Odisha - 758035  
CIN: U51909WB1956P110323037

T : +91 94370 09815, 94370 09820, 94370 75260  
E : barbil@mitrask.com  
W : www.mitrask.com



Ref.No.BBL/ENV/2240

Date: 03.12.2020

<b>ANALYSIS REPORT OF FLUE GAS</b>		
<b>Name of the industry</b>	: M/s. SHIVA CEMENT LIMITED	
<b>Address</b>	: Teleghana, Kutra, Dist. Sundargarh (Odisha)	
<b>Date &amp; time of sampling</b>	: 19/11/2020 AT 04.05 PM	
<b>A. General information about stack</b>		
1 Stack connected to	: Cement Mill Bag Filter	
2 Emission due to	: Grinding Process	
3 Material of construction of Stack	: MS	
4 Shape of Stack	: Circular	
5 Whether stack is provided with permanent platform & Ladder	: Yes	
6 Generation Capacity	: ---	
<b>B. Physical characteristics of stack</b>		
1 Height of the stack from ground level	: 33.0 m	
2 Diameter of the stack at sampling point	: 1.0 m	
3 Height of the sampling point from Ground Level	: 25m	
4 Area of Stack	: 0.7857 m <sup>2</sup>	
<b>C. Analysis/Characteristic of stack</b>		
1 Fuel used	: ---	
	2. Fuel consumption	: ---
<b>D. Results of sampling &amp; analysis of gaseous emission</b>		
	<b>Result</b>	<b>Method</b>
1 Temperature of emission (°C)	: 47	EPA Part 2
2 Barometric pressure (mm of Hg)	: 750	EPA Part 2
3 Velocity of gas (m/sec)	: 5.14	EPA Part 2
4 Quantity of gas flow (Nm <sup>3</sup> /hr.)	: 13080	EPA Part 2
5 Concentration of Particulate Matters (mg/Nm <sup>3</sup> )	: 23.5	EPA Part-5
<b>E. Pollution control device</b>		
Details of pollution control devices attached with the stack	: Bag Filter	

Checked by:-



For Mitra S. K. Private Limited

Authorized Signatory

H. O.: Shrachi Centre (5th Floor), 74B, Acharya Jagadish Ghandra Bose Road, Kolkata - 700 016, West Bengal, India

T: 91 33 22172249 / 4014 3000 / 2285 0006 / 2285 0007 F: 91 33 2285 0008 E: info@mitrask.com W: www.mitrask.com



AtP.O. BARBIL Ward No-6  
Dist : Keonjhar, Odisha - 758035  
CIN: U51909WB1955PTC023037

T : +91 94370 09815, 94370 09820, 94370 75289  
E : barbil@mitrask.co.in  
W : www.mitrask.com

Ref. No. BBL/ENV/2241

DATE: 03/12/2020

**CERTIFICATE OF ANALYSIS**


Name of the industry	: M/s. SHIVA CEMENT LIMITED
Address	: Teleghana, Kutra, Dist. Sundargarh (Odisha)
Sampling Location	: Bore well Water Plant Site
Date of sampling	: 19/11/2020

**MICROBIOLOGICAL ANALYSIS OF WATER AS PER IS: 10500 – 1991**

Sl No.	Test Parameters	Norms as per IS:10500-1991	Results
1	Total Coliform MPN/100ml	10 (MAX)	<2.0
2	Faecal Coliforms MPN/10	Not Detected	Not Detected
3	E. Coll MPN/10	Not Detected	Not Detected

**CHEMICAL ANALYSIS OF WATER AS PER IS: 10500 – 1991**

Sl. No.	Test Parameters	UOM	Norms as per IS: 10500-1991		Results
			Desirable Limit	Permissible Limit	
1	Colour	Hazen	5	25	<1.0
2	Odeur	---	Unobjectionable	---	Unobjectionable
3	pH at 28°C	---	6.5-8.5	No Relaxation	6.5
4	Turbidity	NTU	5	10	<1.0
5	Total Dissolved Solids (as TDS)	mg/l	500	2000	52.0
6	Aluminium ( as Al )	mg/l	0.03	0.2	<0.01
7	Anionic Detergents (as MBAS)	mg/l	0.2	1.0	<0.02
8	Boron (as B)	mg/l	1.0	5.0	<0.5
9	Calcium (as Ca)	mg/l	75	200	6.34
10	Chloride (as Cl )	mg/l	250	1000	16.47
11	Copper (as Cu)	mg/l	0.05	1.5	<0.02
12	Fluoride ( as F )	mg/l	1.0	1.5	<0.1
13	Free Residual Chlorine	mg/l	0.2(Min)	---	<0.1
14	Iron (as Fe)	mg/l	0.3	1.0	<0.05
15	Magnesium (as Mg)	mg/l	30	100	2.98
16	Manganese (as Mn)	mg/l	0.1	0.3	<0.02
17	Nitrate (as NO <sub>3</sub> )	mg/l	45	100	3.2
18	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH)	mg/l	0.001	0.002	<0.001
19	Selenium (as Se)	mg/l	0.01	No Relaxation	<0.005
20	Sulphate ( as SO <sub>4</sub> )	mg/l	200	400	3.4
21	Alkalinity (as CaCO <sub>3</sub> )	mg/l	200	600	20.2
22	Total Hardness (as CaCO <sub>3</sub> )	mg/l	300	600	25.7
23	Cadmium (as Cd)	mg/l	0.01	No Relaxation	<0.001
24	Cyanide ( as CN)	mg/l	0.05	No Relaxation	<0.01
25	Lead (as Pb )	mg/l	0.05	No Relaxation	<0.005
26	Mercury (as Hg )	mg/l	0.001	No Relaxation	<0.001
27	Arsenic( as As)	mg/l	0.05	No Relaxation	<0.01
28	Zinc (as Zn)	mg/l	5.0	15.0	<0.02
29	Hexavalent Chromium (as Cr+6)	mg/l	0.05	No Relaxation	<0.01
30	Pesticide	mg/l	---	---	<0.0001
31	Poly nuclear Aromatic hydrocarbon	mg/l	---	---	<0.005

Checked by: 



For Mitra S.K Private Limited  
Authorised Signatory