



CIN: L26942OR1985PLC001557

# SHIVA CEMENT LIMITED

AT : TELIGHANA  
P.O. : BIRINGATOLI  
TEHSIL : KUTRA  
DIST. : SUNDARGARH  
ODISHA, INDIA,  
PIN-770018  
Date : 23.05.2022

SCL/6000-09/2022/78

Ministry of Environment, Forest and Climate Change,  
Eastern Regional Office (EZ),  
A/3, Chandrasekharpur,  
Bhubaneswar- 751023  
E-mail: [roez.bsr-mef@nic.in](mailto:roez.bsr-mef@nic.in)

**Sub** : Half yearly Compliance report of M/s Shiva Cement Limited for the period October-2021 to March-2022.  
**Ref:** 1) Environmental Clearance No: F.NO. J-11011/84/2008-IA II(I), Dt: 23.05.2011

Dear Sir,

With reference to the above mentioned letters for the said subject matter, please find enclosed herewith the compliance to the conditions stipulated in the letters for the period October-2021 - March-2022 for your kind reference. The Said Period compliance is also being E-mailed on [roez.bsr-mef@nic.in](mailto:roez.bsr-mef@nic.in).

Soft copy of this Compliance Report as well as the Environment data month wise are also uploaded in our official website: [www.shivacement.com](http://www.shivacement.com).

Thanking you,

Yours Faithfully,

FOR M/S SHIVA CEMENT LIMITED



(ANIL MISHRA)

UNIT HEAD

Encl: As above

- 1) HY Compliance report with Supportive Annexures
- 2) Environment Monitoring data for the period October-2021 to March-2022

Copy to:

- 1) Zonal Office, Central Pollution Control Board, Southern Conclave, Block 502, 5th & 6th Floors, 1582 Rajdanga Main Road, Kolkata - 700 107 (W. B.)
- 2) The Member Secretary, State Pollution Control Board, Odisha, Parivesh Bhawan, A/118, Unit 8, Nilakantha Nagar, Nayapalli, Bhubneswar-751012.
- 3) The Regional Officer State Pollution Control Board, Odisha, Sector-5, Rourkela, Sundergarh- 756019

## M/s SHIVA CEMENT LIMITED

AT. TELIGHANA, P.O. BIRINGATOLI, VIA. KUTRA, DIST. SUNDARGARH (ODISHA)

COMPLIANCE STATUS OF ENVIRONMENT CLEARANCE LETTER NO.:J-11011/84/2008-IA-II (I) dated: May 23, 2011

Half Yearly Compliance for the period from October 2021 to March 2022

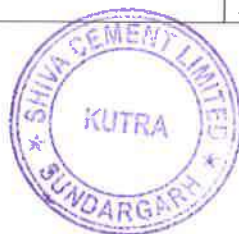
A	SPECIFIC CONDITIONS	COMPLIANCE STATUS
(i)	Continuous stack monitoring facilities to monitor gaseous emissions from all the stacks shall be provided. After expansion, particulate emissions shall be controlled within 50 mg/Nm <sup>3</sup> by installing adequate air pollution control system. Electrostatic precipitators to clinker cooler, bag house to raw mill/kiln and bag filters to coal mill and cement mill	Continuous stack monitoring facilities are installed in the existing kiln, cement mill & coal mill stacks. Expansion project work is in progress and the particulate emissions from the stack will be maintained below 30 mg/Nm <sup>3</sup> post commissioning of the expansion project.
(ii)	Possibilities shall be explored for the proper and full utilization of gases generated from the kiln in waste heat recovery boiler (WHRB) and a feasibility report should be prepared and submitted to the Ministry and its Regional Office at Bhubaneswar within 3 months from the date of issue of the letter	WHRB is currently being installed.
(iii)	The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 should be followed.	Complying with the National Ambient Air Quality Standards issued by the Ministry in the present plant and will be complied in the expansion project also.
(iv)	Secondary fugitive emissions should be controlled and maintained within the prescribed limits and regularly monitored. Guidelines / Code of Practice issued by the CPCB in this regard should be followed.	Fugitive emissions from all the sources are maintained below the prescribed norms. Guidelines/code of practice issued by the CPCB are being followed. The Monitoring results are attached as <b>Annexure- 1</b> .
(v)	Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land. All the raw materials including fly ash shall be transported in the closed containers only and should not be overloaded. The company should have separate truck parking area. Vehicular emissions should be regularly monitored.	The approach road connecting cement plant to SH-10 is presently being widened and concreted as per applicable IRC guidelines in order to reduce impact of transport of raw materials on the surroundings environment and agriculture lands.  In addition, the company has also planned to install OLBC from mines to plant and railway siding adjacent to existing plant premises after acquisition of required land for efficient and environment friendly transport of raw material and finished goods.  Transportation of raw materials is done through closed/ covered vehicles fly ash is transported in closed containers. Separate truck parking facility has been provided. Vehicular emissions are regularly monitored.
(vi)	Total water requirement should not exceed 700 m <sup>3</sup> /day.	Currently, water consumption of plant is approx.



	All the treated wastewater shall be recycled and reused in the process and/or for dust suppression and green belt development and other plant related activities etc. No process wastewater shall be discharged outside the factory premises and 'zero' discharge should be adopted	250 m <sup>3</sup> /day and necessary provision has been made in the project for the use of treated wastewater in the green belt development. No waste water is discharged outside the premises. Zero liquid discharge status is maintained.
(vii)	Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir should be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.	Rainwater harvesting structure has been provided within the plant premises. Presently the collected water is being recharged. However, after full commissioning of the expansion project, the rainwater will be collected in a reservoir of suitable dimension. Additionally, rainwater is also being collected in mine pit and ponds adjacent to mine lease. The company has planned to lay a pipeline from mines to plant along the OLBC corridor for supply of mine pit water to cement plant in order to conserve groundwater.
(viii)	Regular monitoring of influent and effluent surface, sub-surface and ground water should be ensured and treated wastewater should meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent. Leachate study for the effluent generated and analysis should also be regularly carried out and report submitted to the Ministry's Regional Office at Bhubaneswar, SPCB and CPCB.	There is no waste water generation from the cement manufacturing process. However, groundwater / wastewater sample analysis is being carried out by third party and the reports were submitted to SPCB/CPCB/MoEF&CC on regular basis.
(ix)	All the bag filter dust, raw mill dust, coal dust, clinker dust and cement dust from pollution control devices should be recycled and reused in the process and used for cement manufacturing. Spent oil and batteries should be sold to authorized re-cyclers / re-processors only.	Being complied. All Bag filter dust is automatically recycled in the system and the same will be followed after expansion. Spent oil & batteries are being sold to authorized third party recyclers.
(x)	Efforts shall be made to use low-grade lime, more fly ash and solid waste in the cement manufacturing.	Being complied in the present plant and the same will be practiced for future expansion project also. Slag cement, Composite Cement and PPC will be produced.
(xi)	An effort shall be made to use of high calorific hazardous waste in the cement kiln and necessary provision should be made accordingly.	High calorific hazardous waste will be utilized in the cement kiln after commissioning of expansion project.
(xii)	As proposed, green belt should be developed in at least 33 % area in and around the cement plant as per the CPCB guidelines to mitigate the effects of air emissions in consultation with local DFO.	Green belt is already developed in 6.12 Ha areas inside the plant premises. Further Green belt development will be taken by us as per stipulated condition once expansion project is over. Details of plantation done till date is attached as <b>Annexure-2</b>
(xiii)	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Cement plants should be implemented.	Complied.
(xiv)	All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 5th	All the commitments made during Public Hearing is being implemented and separate budget for



	October, 2010 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bhubaneswar.	implementing the public hearing commitments has been allocated. Details of Peripheral development carried out during last year (2021-22) is attached as <b>Annexure- 3</b>
(xv)	At least 5% of the total cost of the project shall be earmarked towards the enterprise social commitment based on Public Hearing & social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhubaneswar. Implementation of such program should be ensured accordingly in a time bound manner.	5% of the total project cost has been earmarked towards ESC and the item-wise details along with time bound action plan shall be submitted to Ministry's Regional office, Bhubaneswar. Execution of the project started w.e.f. Oct'2020. Time bound action plan for undertaking the peripheral development is attached as <b>Annexure-4</b>  Details of the activities undertaken under Improving Living Conditions, Promoting Social development, rural development, swatch Bharat mission, promotion of education, Livelihood promotions during last years (2020-2021) are attached as <b>Annexure-3</b>
(xvi)	The company shall provide housing for construction labour within the site with all necessary and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Complied. The company has provided the housing for construction labor with all necessary facilities such as fuel for cooking, toilets, Safe drinking water medical facility etc. The provided housing are temporary structure which will removed after completion of the project.
(xvii)	The company shall adopt well laid down corporate environment policy and identified and designate responsible officers at all levels of its hierarchy for ensuring adherence to the policy and compliance with environmental clearance, environmental law and regulations.	The copy of the Corporate Environment Policy is attached as <b>Annexure-5</b>
<b>B.</b>	<b>GENERAL CONDITIONS</b>	<b>COMPLIANCE</b>
(i)	The project authority shall adhere to the stipulations made by Orissa Environment Conservation Board (OECB) and State Government.	We are strictly adhering to the stipulations made by Odisha State Pollution Control Board.
(ii)	No further expansion or modification of the plant shall be carried out without prior approval of this Ministry.	Noted and will be complied.
(iii)	At least four ambient air quality monitoring stations shall be established in the down wind direction as well as where maximum ground level concentration of PM10, SO2 and Nox are anticipated in consultation with the SPCB. Data on ambient air quality and stack emissions shall be regularly submitted to this Ministry including its Regional Office and SPCB / CPCB once in six months.	Four AAQ stations have been established under intimation to SPCB, Rourkela and Ambient air quality monitoring is being done at these locations at the prescribed intervals. The monitored results are regularly submitted to SPCB/CPCB/MoEF&CC. The monitored results for the period Oct-21 to Mar-22 are attached as <b>Annexure-1.</b>





(iv)	Industrial wastewater shall be properly collected and treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.	There is no waste water generation from the cement manufacturing process. However, after installation of WHRS, the waste water shall be suitably treated and used for plantation and dust suppression.
(v)	The overall noise levels in and around the plant area shall be kept well within the standards 85 dBA by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment Protection Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	Overall noise levels in and around the plant are maintained below 85 dBA. Suitable noise control measures such as acoustic hoods, silencers to fans, acoustic hoods etc. have been provided wherever feasible.  Ambient noise levels are maintained within the prescribed norms. The monitored results for the period Oct-21 to Mar-22 is attached as <b>Annexure-1</b> .
(vi)	Proper housekeeping and adequate occupational health programmes shall be taken up. Occupational Health Surveillance programme shall be done on a regular basis and records maintained properly for at least 30-40 years. The programme shall include lung function and sputum analysis tests once in six months. Sufficient preventive measures shall be adopted to avoid direct exposures to dust etc.	A dedicated housekeeping team has been deployed on regular basis for proper housekeeping.  Occupational health surveillance of workers is being done on regular basis and the records are maintained as stipulated. Six monthly health checkup including lung function, sputum analysis, chest x-ray are being done once in six months.  Regular maintenance of machines and pollution control devices is done to prevent dust emission, Workers engaged in dust prone areas are provided with dust masks.
(vii)	The company shall undertake eco-development measures including community welfare measures in the project area.	The company, through its CSR team, has undertaken various community development programmes in the nearby area. Details of activities as well as expenses incurred on these programmes are given in the <b>Annexure-3</b> attached to this report. Additional development measures will be undertaken after commissioning of the expansion project.
(viii)	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/ EMP.	Noted and agreed to comply
(ix)	A separate environmental management cell with full-fledged laboratory facilities to carry out various management and monitoring functions shall be set up under the control of Senior Executive.	Shiva Cement has a well structured Environment Management Cell staffed with qualified personnel at site supported by the senior team at Corporate Office. Organization structure of Environment Management Cell is attached as



		<b>Annexure-6</b> SCL is engaging the services of NABL, MoEF&CC & OSPCB recognized laboratory to carry out the regular environment monitoring.
(x)	Adequate funds shall be allocated to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. Time bound implementation schedule for implementing all the conditions stipulated herein shall be submitted. The funds so provided shall not be diverted for any other purpose.	Implementation of environment management activities is under process. Time bound implementation schedule for implementing all the conditions stipulated herein has been submitted to the R.O. Bhubaneswar. Funds provided will not be diverted to any other purpose.
(xi)	The Regional Office of this Ministry / CPCB / ASPCB shall monitor the stipulated conditions. The project authorities shall extend full co-operation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.	Noted and will be complied.
(xii)	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both on hard copies as well as e-mail) to the respective Regional Office of Moef, the respective Zonal Office of CPCB and the CECB.	Six monthly compliance reports is being submitted to all the concerned regulatory authorities on regular basis as stipulated.
(xiii)	The Project Authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	Final approval of the project : <b>27.11.2019</b> Date of financial closure of the project is <b>27.11.2019</b> Start of project execution (land development work): <b>22-10.2020.</b>
(xiv)	Measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM etc. shall be provided with ear plugs/ muffs.	Adequate measures have been taken to control noise levels below 85 dBA. Workers engaged in high noise areas and those associated with operation of HEMM are provided with ear plugs or ear muffs as applicable.
(xv)	Industry waste water (workshop and waste water from the Mine) shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19.05.1993 and 31 <sup>st</sup> December, 1993 or as amended from time to time. Oil and greases trapped shall be installed before discharge of workshop effluents.	Presently we do not have workshop in mining areas and therefore no waste water is generated. However after expansion, workshop will be provided and trade effluent will be treated as prescribed.
(xvi)	Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects. Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and take	Dust mask are provided to workers in plant area. Regular safety training is also provided.  Occupational health surveillance program of the workers has been implemented. Regular health checkup of workers is also being done.



	corrective measures if needed.	
(xvii)	The project authorities shall inform to the Regional Office located regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	Date of land development work – 22-10-2020
(xviii)	A copy of clearance letter shall be marked to concerned Panchayat / local NGO, if any, from whom suggestion /representation, if any, was received while processing the proposal.	Complied
(xix)	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, ZillaParishad/ Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/representations if any, were received while processing the proposal. The clearance letter shall be also put up on the website of the Company by the proponent.	We have sent the copy of our Environment Clearance to concerned panchayat, zillaparishad/municipal corporation.  Environment clearance letter has been uploaded in the company web site i.e www.shivacement.com. It can be accessed through the following link: <a href="https://shivacement.com/wp-content/uploads/2021/02/Environment-Clearance-SCL_compressed.pdf">https://shivacement.com/wp-content/uploads/2021/02/Environment-Clearance-SCL_compressed.pdf</a> .
(xx)	The Project Authorities shall advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the Orissa Environment Conservation Board and also at web site of the Ministry of Environment and Forests at "http://enfor.nic.in and a copy of the same shall be forwarded to the Regional Office of this Ministry.	The public notice was published in vernacular language (Odia) in "SAMAJA" and in English language in "BUSINESS STANRD" on dated 09.06.2011. The copy of the same is attached as <b>Annexure – 7</b> .
(xxi)	The environmental statement for each financial year ending 31 <sup>st</sup> March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986 as amended subsequently, shall also be put on the website of the Company along with the status of compliance of EC conditions and shall also be sent to the respective regional office of MoEF by e-mail.	Environmental Statement for each financial year ending 31 <sup>st</sup> March in Form-V is being submitted to Odisha State Pollution Control Board, Bhubaneswar and its Regional Office at Rourkela. Environment Statement for the FY 2020-21 was submitted on dt: 21.09.2021.The copy is attached as <b>Annexure-8</b> .
9.	The ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Noted and agreed.
10.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Noted and agreed.



11.	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1986, Hazardous Wastes (Management, Handling and Transboundary) Rules, 2008 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.	Noted and agreed.
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For SHIVA CEMENT LTD  
  
(AUTHORISED SIGNATORY)

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**ENVIRONMENTAL MONITORING REPORT  
FOR THE MONTH OF OCTOBER  
2021**

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**At the request of:**

**M/S. SHIVA CEMENT LIMITED**

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

\*\*\*\*\*

**Conducted By:**



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

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

# Mitra S. K. Private Limited

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

T : 06767 - 275209, 94370 75269  
 E : barbil@mitrask.co.in



Ref. No. BBL/ENV/2838

DATE: 02/11/2021

## ANALYSIS REPORT OF AMBIENT AIR

Name of the Industry:		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	19/20.10.2021	Near Main Gate	47.2	25.3	6.4	20.3	0.28
2	19/20.10.2021	Near Office Building	40.5	21.8	6.2	18.6	0.24
3	20/21.10.2021	Kiln Area.	45.6	23.7	6.2	19.2	0.26
4	20/21.10.2021	Colony Area of SCL	38.4	18.6	6.0	17.8	0.23
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) : 734			Temperature °C : 25-33		Climatic condition : Cloudy		

Checked by:-



For Mitra S. K. Private Limited

Authorised Signatory



Ref. No. BBL/ENV/2839

DATE: 02/11/2021


## CERTIFICATE OF NOISE MONITORING

Name of the Industry :		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 Area	19/20.10.2021	50.4	34.9	38.4
2.	Raw Mill Area	19/20.10.2021	51.0	30.0	37.5
3.	Coal mill Area	19/20.10.2021	51.0	30.3	37.6
4.	Cement Mill Area	19/20.10.2021	51.1	31.1	37.7
5.	Main Gate Area	20/21.10.2021	52.7	37.2	40.0
6.	Colony Area	20/21.10.2021	49.0	29.7	37.6

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	SILENE ZONE	50	40

Checked by:- 



For Mitra S. K. Private Limited

  
Authorised Signatory

# Mitra S. K. Private Limited

AVP.O. : BARBIL Ward No - 6  
Dist. : Keonjhar, Odisha - 758035  
CIN : U51909WB1956PTC023037

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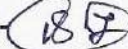


Ref. No.BBL/ENV/2840

Date: 02/11/2021

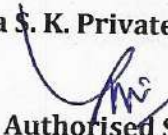
## GROUND WATER LEVEL MONITORING

Name of the industry:	M/s. SHIVA CEMENT LIMITED	
Address:	Teleghana, Kutra, Dist. Sundargarh (Odisha)	
Date of Monitoring	Location	Water Level below (in meters)
21.10.2021	Bore well No.-1 (Back Side Kiln)	11.30
21.10.2021	Bore well No.-2 (Near Coal Yard)	11.74
21.10.2021	Bore well No.-3 (Plant Site)	18.20

Checked by: 



For Mitra S. K. Private Limited

  
Authorised Signatory



**ENVIRONMENTAL MONITORING REPORT  
FOR THE MONTH OF NOVEMBER  
2021**

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**At the request of:**

**M/S. SHIVA CEMENT LIMITED**

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

\*\*\*\*\*

**Conducted By:**



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

At/Po – Barbil  
Dist.- : Keonjhar, (Odisha)  
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# Mitra S. K. Private Limited

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W : www.mitrask.com



Ref. No.BBL/ENV/2863

DATE: 02/12/2021

## AMBIENT AIR QUALITY MONITORING REPORT

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

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

Sl. No.	Date of Monitoring	Location	Concentration of Pollutants											
			PM <sub>10</sub> (µg/m <sup>3</sup> )	PM <sub>2.5</sub> (µg/m <sup>3</sup> )	SO <sub>2</sub> (µg/m <sup>3</sup> )	NO <sub>2</sub> (µg/m <sup>3</sup> )	CO (mg/m <sup>3</sup> )	O <sub>3</sub> (µg/m <sup>3</sup> )	NH <sub>3</sub> (µg/m <sup>3</sup> )	Pb (µg/m <sup>3</sup> )	Ni (ng/m <sup>3</sup> )	As (ng/m <sup>3</sup> )	Benzen e (µg/m <sup>3</sup> )	Benzo(a) pyrene (ng/m <sup>3</sup> )
1	18/19.11.2021	Near Nain Gate	54.9	29.2	6.4	20.8	0.29	<20.0	<10.0	<0.01	<5.0	<1.0	<4.2	<0.5
2	18/19.11.2021	Near Office Area	47.2	24.8	6.2	19.2	0.26	<20.0	<10.0	<0.01	<5.0	<1.0	<4.2	<0.5
3	18/19.11.2021	Near Kiln Area	50.8	26.7	6.2	18.8	0.25	<20.0	<10.0	<0.01	<5.0	<1.0	<4.2	<0.5
4	18/19.11.2021	Colony Area of SCL	43.6	22.4	6.0	18.2	0.24	<20.0	<10.0	<0.01	<5.0	<1.0	<4.2	<0.5
Limit as per CPCB notification, New Delhi, 18th Nov, 2009. for Ambient air quality			100	60	80	80	2	180	400	1	20	6	5	1
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	Air Sampling, 3 <sup>rd</sup> Edn. By James P. Lodge (Method-411)	Air Sampling, 3 <sup>rd</sup> Edn. By James P. Lodge (Method-401)	EPA IO-3.2	EPA IO-3.2	APHA 22 <sup>nd</sup> . 3114 C	IS 5182: Part. 11	IS 5182: Part. 12
Barometric pressure (mm of Hg):			738	Temperature °C:			22 - 35	Climatic condition:			Clear & Sunny			

Checked by:-



For Mitra S. K. Private Limited  
Authorised Signatory



Ref. No. BBL/ENV/2865

DATE: 02/12/2021

## ANALYSIS REPORT OF FUGITIVE AIR

Name of the Industries:		M/s. SHIVA CEMENT LIMITED		
Address:		Teleghana, Kutra, Dist. Sundargarh (Odisha)		
Sl.No.	Date of Sampling	Location	Concentration of Pollutants: $\mu\text{g}/\text{m}^3$	
			RPM	SPM
1	20.11.2021	Crusher Area	54.8	146.4
2	20.11.2021	Cement Mill Area	58.5	166.3
3	20.11.2021	Coal Mill Area	56.2	154.6
4	20.11.2021	Kiln Area	53.7	145.5
Sampling & Analysis done According to			2005IS: 5182 (Part-23)	IS: 5182 (Part-4) 1999 Rffm:
Barometric pressure (mm of Hg)			738	
Temperature $^{\circ}\text{C}$			22 - 35	
Climatic condition			Clear & Sunny	

Checked by:-



For Mitra S. K. Private Limited

Authorised Signatory

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

T : 06767 - 275209, 94370 75269  
 E : barbil@mitrask.co.in

Ref. No. BBL/ENV/2866

DATE: 02/12/2021

## CERTIFICATE OF NOISE MONITORING

Name of the Industry :		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 Area	18/19.11.2021	51.3	30.7	37.9
2.	Raw Mill Area	18/19.11.2021	51.9	30.0	38.3
3.	Coal mill Area	18/19.11.2021	52.1	30.7	38.6
4.	Cement Mill Area	18/19.11.2021	51.2	31.1	37.9
5.	Main Gate Area	18/19.11.2021	55.4	34.4	41.9
6.	Colony Area	18/19.11.2021	49.0	30.0	35.7

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

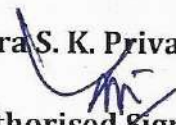
### AMBIENT AIR QUALITY STANDARDS IN RESPECT OF NOISE AS PER CPCB GUIDELINES

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	SILENE ZONE	50	40

Checked by:- 



For Mitra S. K. Private Limited

  
 Authorised Signatory



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

T : 06767 - 275209, 94370 75269  
 E : barbil@mitrask.co.in

Ref No./BBL/ENV/2867

Date: 02/12/2021

## CERTIFICATE OF WORK ZONE NOISE MONITORING


Name of the Industries:		M/s. SHIVA CEMENT LIMITED			
Address:		Teleghana, Kutra, Dist. Sundargarh (Odisha)			
SL. NO.	Monitoring Location	Date & Time	Noise Level in dB (A)		
			Ld	Ln	Ldn
1.	Near Crusher Plant	19/20.11.2021	53.3	30.9	39.7
2.	Near Raw Mill	19/20.11.2021	52.8	31.2	39.3
3.	Near Coal Mill	19/20.11.2021	53.5	31.1	39.9
4.	Near Cement Mill	19/20.11.2021	54.5	31.8	40.9

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

### 19.10.95 OCCUPATIONAL NOISE EXPOSURE AS PER OCCUPATIONAL SAFETY AND HELTH ADMINISTRATION

Duration per day, hours	Sound Level dB(A)
8	90
6	92
4	95
3	97
2	100
1 and 1/2	102
1	105
1/2	110
¼ or less	115

TABLE G-16 - PERMISSIBLE NOISE EXPOSURES (1)

Checked by:- 



For Mitra S. K. Private Limited  
  
 Authorised Signatory

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

T : 06767 - 275209, 94370 75269  
E : barbil@mitrask.co.in

Ref. No. BBL/ENV/2868

DATE: 04/12/2021

## CERTIFICATE OF ANALYSIS


Name of the industry	: M/s. SHIVA CEMENT LIMITED
Address	: Teleghana, Kutra, Dist. Sundargarh (Odisha)
Sampling Location	: Bore well Water No.-1 (Back Side Kiln)
Date of sampling	: 20/11/2021

### MICROBIOLOGICAL ANALYSIS OF WATER AS PER IS: 10500 – 2012

Sl No.	Test Parameters	Norms as per IS:10500-2012	Results
1	Total Coliform MPN/100ml	10 (MAX)	<2.0
2	Faecal Coliforms MPN/10	Not Detected	Not Detected
3	E. Coli MPN/10	Not Detected	Not Detected

### CHEMICAL ANALYSIS OF WATER AS PER IS: 10500 – 2012

Sl. No.	Test Parameters	UOM	Norms as per IS: 10500-2012		Results
			Desirable Limit	Permissible Limit	
1	Colour	Hazen	5	15	<1.0
2	Odour	---	Agreeable	Agreeable	Agreeable
3	pH at 28°C	---	6.5-8.5	No Relaxation	6.24
4	Turbidity	NTU	1	5	<1.0
5	Total Dissolved Solids (as TDS)	mg/l	500	2000	138.0
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	0.5	1.0	<0.5
9	Calcium (as Ca)	mg/l	75	200	33.0
10	Chloride (as Cl )	mg/l	250	1000	22
11	Copper (as Cu)	mg/l	0.05	1.5	<0.02
12	Fluoride ( as F )	mg/l	1.0	1.5	0.48
13	Free Residual Chlorine	mg/l	0.2	1.0	<0.1
14	Iron (as Fe)	mg/l	0.3	No Relaxation	0.07
15	Magnesium (as Mg)	mg/l	30	100	6.6
16	Manganese (as Mn)	mg/l	0.1	0.3	<0.02
17	Nitrate (as NO <sub>3</sub> )	mg/l	45	No Relaxation	5.9
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	0.9
21	Alkalinity (as CaCO <sub>3</sub> )	mg/l	200	600	88
22	Total Hardness (as CaCO <sub>3</sub> )	mg/l	300	600	110
23	Cadmium (as Cd)	mg/l	0.003	No Relaxation	<0.001
24	Cyanide ( as Cn )	mg/l	0.05	No Relaxation	<0.01
25	Lead (as Pb )	mg/l	0.01	No Relaxation	<0.005
26	Mercury (as Hg )	mg/l	0.001	No Relaxation	<0.001
27	Arsenic( as As)	mg/l	0.01	0.05	<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	Polly nuclear Aromatic hydrocarbon	mg/l	0.0001	No Relaxation	<0.005

Checked by : 



For Mitra S.K. Private Limited  
Authorised Signatory



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

T : 06767 - 275209, 94370 75269  
E : barbil@mitrask.co.in

Ref. No. BBL/ENV/2869

DATE: 04/10/2021

## CERTIFICATE OF ANALYSIS

Name of the industry	: M/s. SHIVA CEMENT LIMITED
Address	: Teleghana, Kutra, Dist. Sundargarh (Odisha)
Sampling Location	: Bore well Water No.-2 (Near Coal Yard)
Date of sampling	: 20/11/2021


### MICROBIOLOGICAL ANALYSIS OF WATER AS PER IS: 10500 – 2012

Sl No.	Test Parameters	Norms as per IS:10500-2012	Results
1	Total Coliform MPN/100ml	10 (MAX)	<2.0
2	Faecal Coliforms MPN/10	Not Detected	Not Detected
3	E. Coli MPN/10	Not Detected	Not Detected

### CHEMICAL ANALYSIS OF WATER AS PER IS: 10500 – 2012

Sl. No.	Test Parameters	UOM	Norms as per IS: 10500-2012		Results
			Desirable Limit	Permissible Limit	
1	Colour	Hazen	5	15	<1.0
2	Odour	---	Agreeable	Agreeable	Unobjectionable
3	pH at 26°C	---	6.5-8.5	No Relaxation	6.60
4	Turbidity	NTU	1	5	<1.0
5	Total Dissolved Solids (as TDS)	mg/l	500	2000	64.0
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	0.5	1.0	<0.5
9	Calcium (as Ca)	mg/l	75	200	7.8
10	Chloride (as Cl )	mg/l	250	1000	14
11	Copper (as Cu)	mg/l	0.05	1.5	<0.02
12	Fluoride ( as F )	mg/l	1.0	1.5	0.35
13	Free Residual Chlorine	mg/l	0.2	1.0	<0.1
14	Iron (as Fe)	mg/l	0.3	No Relaxation	0.23
15	Magnesium (as Mg)	mg/l	30	100	5.6
16	Manganese (as Mn)	mg/l	0.1	0.3	<0.02
17	Nitrate (as NO <sub>3</sub> )	mg/l	45	No Relaxation	6.0
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	<1.0
21	Alkalinity (as CaCO <sub>3</sub> )	mg/l	200	600	28.0
22	Total Hardness (as CaCO <sub>3</sub> )	mg/l	300	600	43.0
23	Cadmium (as Cd)	mg/l	0.003	No Relaxation	<0.001
24	Cyanide ( as CN )	mg/l	0.05	No Relaxation	<0.01
25	Lead (as Pb )	mg/l	0.01	No Relaxation	<0.005
26	Mercury (as Hg )	mg/l	0.001	No Relaxation	<0.001
27	Arsenic( as As )	mg/l	0.01	0.05	<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	Polly nuclear Aromatic hydrocarbon	mg/l	0.0001	No Relaxation	<0.005

Checked by :




For Mitra S.K. Private Limited

Authorised Signatory



A/P.O. : BARBIL Ward No - 6  
Dist : Keonjhar, Odisha - 759035  
CIN : U51909WB1956PTC023037

T : 06767 - 275209, 94370 75269  
E : barbil@mitrask.co.in

Ref. No. BBL/ENV/2870

DATE: 04/12/2021

## CERTIFICATE OF ANALYSIS


Name of the industry	: M/s. SHIVA CEMENT LIMITED
Address	: Teleghana, Kutra, Dist. Sundargarh (Odisha)
Sampling Location	: Bore well Water No.-3 (Near Cement Mill)
Date of sampling	: 20/11/2021

### MICROBIOLOGICAL ANALYSIS OF WATER AS PER IS: 10500 – 2012

Sl No.	Test Parameters	Norms as per IS:10500-2012	Results
1	Total Coliform MPN/100ml	10 (MAX)	<2.0
2	Faecal Coliforms MPN/10	Not Detected	Not Detected
3	E. Coli MPN/10	Not Detected	Not Detected

### CHEMICAL ANALYSIS OF WATER AS PER IS: 10500 – 2012

Sl. No.	Test Parameters	UOM	Norms as per IS: 10500-2012		Results
			Desirable Limit	Permissible Limit	
1	Colour	Hazen	5	15	<1.0
2	Odour	---	Agreeable	Agreeable	Unobjectionable
3	pH at 26°C	---	6.5-8.5	No Relaxation	6.58
4	Turbidity	NTU	1	5	<1.0
5	Total Dissolved Solids (as TDS)	mg/l	500	2000	88.0
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	0.5	1.0	<0.5
9	Calcium (as Ca)	mg/l	75	200	13.0
10	Chloride (as Cl)	mg/l	250	1000	20.0
11	Copper (as Cu)	mg/l	0.05	1.5	<0.02
12	Fluoride ( as F )	mg/l	1.0	1.5	0.18
13	Free Residual Chlorine	mg/l	0.2	1.0	<0.1
14	Iron (as Fe)	mg/l	0.3	No Relaxation	0.27
15	Magnesium (as Mg)	mg/l	30	100	3.8
16	Manganese (as Mn)	mg/l	0.1	0.3	<0.02
17	Nitrate (as NO <sub>3</sub> )	mg/l	45	No Relaxation	7.9
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	12.0
21	Alkalinity (as CaCO <sub>3</sub> )	mg/l	200	600	20.0
22	Total Hardness (as CaCO <sub>3</sub> )	mg/l	300	600	47.0
23	Cadmium (as Cd)	mg/l	0.003	No Relaxation	<0.001
24	Cyanide ( as CN )	mg/l	0.05	No Relaxation	<0.01
25	Lead (as Pb)	mg/l	0.01	No Relaxation	<0.005
26	Mercury (as Hg)	mg/l	0.001	No Relaxation	<0.001
27	Arsenic (as As)	mg/l	0.01	0.05	<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	Polly nuclear Aromatic hydrocarbon	mg/l	0.0001	No Relaxation	<0.005

Checked by: 



For Mitra S.K. Private Limited  
Authorised Signatory



# Mitra S. K. Private Limited

At/P.O.: BARBIL Ward No - 6  
Dist.: Keonjhar, Odisha - 758035  
CIN : U51909WB1956PTC023037  
T : 06767 - 275209, 94370 75269  
E : barbil@mitrask.co.in



Ref. No.BBL/ENV/2871

Date: 02/12/2021

## GROUND WATER LEVEL MONITORING

Name of the industry:	M/s. SHIVA CEMENT LIMITED	
Address:	Teleghana, Kutra, Dist. Sundargarh (Odisha)	
Date of Monitoring	Location	Water Level below (in meters)
20.11.2021	Bore well No.-1 (Back Side Kiln)	7.40
20.11.2021	Bore well No.-2 (Near Coal Yard)	8.35
20.11.2021	Bore well No.-3 (Plant Site)	14.15

Checked by:-



For Mitra S.K. Private Limited

Authorised Signatory

**ENVIRONMENTAL MONITORING REPORT  
FOR THE MONTH OF DECEMBER  
2021**

---

**At the request of:**

**M/S. SHIVA CEMENT LIMITED**

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

\*\*\*\*\*

**Conducted By:**



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

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



# Mitra S. K. Private Limited

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

T : 06767-275209, 94370-75269  
E : barbil@mitrask.co.in



Ref. No. BBL/ENV/2920

DATE: 01/01/2022

## ANALYSIS REPORT OF AMBIENT AIR

Name of the Industry:		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	20/21.12.2021	Near Main Gate	59.2	32.6	6.8	21.8	0.32
2	20/21.12.2021	Near Office Building	50.3	26.8	6.2	19.4	0.26
3	20/21.12.2021	Kiln Area.	53.6	29.2	6.4	20.2	0.27
4	20/21.12.2021	Colony Area of SCL	47.5	25.4	6.4	19.2	0.25
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) : 742			Temperature °C : 16-34		Climatic condition : Clear & Sunny		

Checked by:-

For Mitra S. K. Private Limited

Authorised Signatory

# Mitra S. K. Private Limited

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

T : 06767-275209, 94370-75269  
E : barbil@mitrask.co.in



Ref. No. BBL/ENV/2921

DATE: 01/01/2022

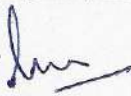
## CERTIFICATE OF NOISE MONITORING

Name of the Industry :		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 Area	21/22.12.2021	51.1	37.9	39.0
2.	Raw Mill Area	21/22.12.2021	51.5	31.4	38.1
3.	Coal mill Area	21/22.12.2021	52.4	31.4	39.0
4.	Cement Mill Area	21/22.12.2021	51.5	31.7	38.2
5.	Main Gate Area	21/22.12.2021	54.5	37.9	41.6
6.	Colony Area	21/22.12.2021	49.0	30.6	35.8

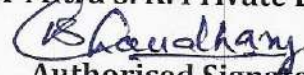
Note : Day Time : 6.00 AM -10.00 PM, Night Time: 10.00PM- 6.00AM

### 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	SILENE ZONE	50	40

Checked by:- 

For Mitra S. K. Private Limited

  
Authorised Signatory



# Mitra S. K. Private Limited

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

T : 06767-275209, 94370-75269  
E : barbil@mitrask.co.in



Ref. No.BBL/ENV/2922

Date: 01/01/2022

## GROUND WATER LEVEL MONITORING

Name of the industry:	M/s. SHIVA CEMENT LIMITED	
Address:	Teleghana, Kutra, Dist. Sundargarh (Odisha)	
Date of Monitoring	Location	Water Level below (in meters)
23.12.2021	Bore well No.-1 (Back Side Kiln)	9.40
23.12.2021	Bore well No.-2 (Near Coal Yard)	7.30
23.12.2021	Bore well No.-3 (Plant Site)	16.20

Checked by:-

For Mitra S. K. Private Limited

Authorised Signatory

**ENVIRONMENTAL MONITORING REPORT  
FOR THE MONTH OF JANUARY  
2022**

---

**At the request of:**

**M/S. SHIVA CEMENT LIMITED**

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

\*\*\*\*\*

**Conducted By:**



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

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

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


T : 06767-275209, 94370-75269  
 E : barbil@mitrask.co.in

Ref. No. BBL/ENV/2988

DATE: 31/01/2022

## ANALYSIS REPORT OF AMBIENT AIR

<b>Name of the Industry:</b>			<b>M/s. SHIVA CEMENT LIMITED</b>				
<b>Address :</b>			<b>Teleghana, Kutra, Dist. Sundargarh (Odisha)</b>				
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	18/19.01.2022	Near Main Gate	61.8	34.2	7.0	22.3	0.34
2	18/19.01.2022	Near Office Building	53.4	29.6	6.4	19.8	0.28
3	19/20.01.2022	Kiln Area.	56.3	31.1	6.6	21.2	0.27
4	19/20.01.2022	Colony Area of SCL	49.6	26.8	6.4	19.6	0.26
<b>Limit as per CPCB notification, New Delhi, 18th Nov, 2009. for Ambient air quality</b>			<b>100</b>	<b>60</b>	<b>80</b>	<b>80</b>	<b>2</b>
<b>Sampling and Analysis done according to</b>			<b>IS: 5182 (Part-23) -1999</b>	<b>USEPA CFR-40, (Part-50), Appendix-L</b>	<b>IS: 5182 (Part-2) -2001</b>	<b>IS: 5182 (Part-6) -2006</b>	<b>IS: 5182 (Part.10) -1999</b>
Barometric pressure (mm of Hg) : 748			Temperature °C : 10-33		Climatic condition : Clear & Sunny		

Checked by:- 



For Mitra S. K. Private Limited  
  
 Authorised Signatory



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

T : 06767-275209, 94370-75269  
E : barbil@mitrask.co.in

Ref. No. BBL/ENV/2989

DATE: 31/01/2022


## CERTIFICATE OF NOISE MONITORING

Name of the Industry :		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 Area	18/19.01.2022	51.3	30.8	37.1
2.	Raw Mill Area	18/19.01.2022	51.6	31.1	38.2
3.	Coal mill Area	18/19.01.2022	51.9	31.6	38.5
4.	Cement Mill Area	18/19.01.2022	52.2	32.4	38.9
5.	Main Gate Area	18/19.01.2022	53.8	37.4	40.9
6.	Colony Area	18/19.01.2022	48.5	30.4	35.3

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	SILENE ZONE	50	40

Checked by: 



For Mitra S. K. Private Limited  
  
Authorised Signatory

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

T : 06767-275209, 94370-75269  
E : barbil@mitrask.co.in

Ref. No.BBL/ENV/2990

Date: 31/01/2022

## GROUND WATER LEVEL MONITORING

Name of the industry:	M/s. SHIVA CEMENT LIMITED	
Address:	Teleghana, Kutra, Dist. Sundargarh (Odisha)	
Date of Monitoring	Location	Water Level below (in meters)
19.01.2022	Bore well No.-1 (Back Side Kiln)	8.10
19.01.2022	Bore well No.-2 (Near Coal Yard)	12.60
19.01.2022	Bore well No.-3 (Plant Site)	17.30

Checked by:-



For Mitra S. K. Private Limited

  
Authorised Signatory



**ENVIRONMENTAL MONITORING REPORT  
FOR THE MONTH OF FEBRUARY  
2022**

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**At the request of:**

**M/S. SHIVA CEMENT LIMITED**

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

\*\*\*\*\*

**Conducted By:**



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

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

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


T : 06767-275209, 94370-75269  
 E : barbil@mitrask.co.in

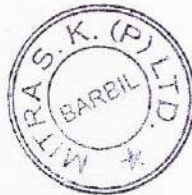
Ref. No. BBL/ENV/3029

DATE: 03/03/2022

## ANALYSIS REPORT OF AMBIENT AIR

Name of the Industry:		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	15/16.02.2022	Near Main Gate	64.3	35.2	7.4	22.4	0.35
2	15/16.02.2022	Near TG Building	55.7	30.8	6.6	19.6	0.27
3	16/17.02.2022	Clinker Bulk loading Area.	59.6	33.1	6.8	21.6	0.29
4	16/17.02.2022	Colony Area of SCL	52.2	28.4	6.4	19.4	0.27
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) : 749			Temperature °C : 16-36		Climatic condition : Clear & Sunny		

Checked by:- 



For Mitra S. K. Private Limited

  
 Authorised Signatory



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

T : 06767-275209, 94370-75269  
E : barbil@mitrask.co.in

Ref. No. BBL/ENV/3030

DATE: 03/03/2022

## ANALYSIS REPORT OF FUGITIVE AIR

<b>Name of the Industries:</b>		<b>M/s. SHIVA CEMENT LIMITED</b>	
<b>Address:</b>		<b>Teleghana, Kutra, Dist. Sundargarh (Odisha)</b>	
Sl.No.	Date of Sampling	Location	Concentration of Pollutants:
			Particulate Matter $\mu\text{g}/\text{m}^3$
1	17.02.2022	Crusher Area	168.6
2	17.02.2022	Cement Mill Area	201.3
3	17.02.2022	Coal Mill Area	197.8
4	17.02.2022	Kiln Area	174.2
Sampling & Analysis done According to			IS: 5182 (Part-23) IS: 5182 (Part-4) 1999 Rffm:
Barometric pressure (mm of Hg)			749
Temperature °C			17 - 36
Climatic condition			Clear & Sunny

Checked by:-



For Mitra S. K. Private Limited

  
Authorised Signatory

# Mitra S. K. Private Limited



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

T : 06767-275209, 94370-75289  
E : barbil@mitrask.co.in

Ref. No. BBL/ENV/3031

DATE: 03/03/2022

## CERTIFICATE OF NOISE MONITORING

Name of the Industry :		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 Area	15/16.02.2022	50.2	30.7	36.8
2.	Raw Mill Area	15/16.02.2022	51.3	31.0	37.9
3.	Coal mill Area	15/16.02.2022	51.4	31.4	38.0
4.	Cement Mill Area	15/16.02.2022	52.5	32.6	39.1
5.	Main Gate Area	15/16.02.2022	54.1	37.4	41.2
6.	Colony Area	16/17.02.2022	48.9	30.7	35.7

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	SILENE ZONE	50	40

Checked by:-



For Mitra S. K. Private Limited

Authorised Signatory



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

T : 06767-275209, 94370-75269

E : barbil@mitrask.co.in

Ref No./BBL/ENV/3032

Date: 03/03/2022

## CERTIFICATE OF WORK ZONE NOISE MONITORING

<b>Name of the Industries:</b>		<b>M/s. SHIVA CEMENT LIMITED</b>			
<b>Address:</b>		<b>Teleghana, Kutra, Dist. Sundargarh (Odisha)</b>			
SL. NO.	Monitoring Location	Date & Time	Noise Level in dB (A)		
			Ld	Ln	Ldn
1.	Near Crusher Plant	18/19.02.2022	53.5	31.4	40.0
2.	Near Raw Mill	18/19.02.2022	52.9	31.2	39.4
3.	Near Coal Mill	18/19.02.2022	53.1	31.1	39.5
4.	Near Cement Mill	18/19.02.2022	53.8	31.5	40.2

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

### 19.10.95 OCCUPATIONAL NOISE EXPOSURE AS PER OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

Duration per day, hours	Sound Level dB(A)
8	90
6	92
4	95
3	97
2	100
1 and 1/2	102
1	105
1/2	110
¼ or less	115

TABLE G-16 - PERMISSIBLE NOISE EXPOSURES (1)

Checked by:- 



For Mitra S. K. Private Limited

  
 Authorised Signatory

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

T : 06767-275209, 94370-75269  
E : [info@mitras.com](mailto:info@mitras.com)  
Ref. No. **SBL/ENV/3033**

DATE: 03/03/2022

## CERTIFICATE OF ANALYSIS

Name of the industry	: M/s. SHIVA CEMENT LIMITED
Address	: Teleghana, Kutra, Dist. Sundargarh (Odisha)
Sampling Location	: Bore well Water No.-1 (Back Side Kiln)
Date of sampling	: 17/02/2022

### MICROBIOLOGICAL ANALYSIS OF WATER AS PER IS: 10500 – 2012

Sl No.	Test Parameters	Norms as per IS:10500-2012	Results
1	Total Coliform MPN/100ml	10 (MAX)	<2.0
2	Faecal Coliforms MPN/10	Not Detected	Not Detected
3	E. Coli MPN/10	Not Detected	Not Detected

### CHEMICAL ANALYSIS OF WATER AS PER IS: 10500 – 2012

Sl. No.	Test Parameters	UOM	Norms as per IS: 10500-2012		Results
			Desirable Limit	Permissible Limit	
1	Colour	Hazen	5	15	<1.0
2	Odour	---	Agreeable	Agreeable	Agreeable
3	pH at 26°C	---	6.5-8.5	No Relaxation	6.89
4	Turbidity	NTU	1	5	2.9
5	Total Dissolved Solids (as TDS)	mg/l	500	2000	68.0
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	0.5	1.0	<0.5
9	Calcium (as Ca)	mg/l	75	200	9.3
10	Chloride (as Cl )	mg/l	250	1000	7.7
11	Copper (as Cu)	mg/l	0.05	1.5	<0.02
12	Fluoride ( as F )	mg/l	1.0	1.5	0.23
13	Free Residual Chlorine	mg/l	0.2	1.0	<0.1
14	Iron (as Fe)	mg/l	0.3	No Relaxation	0.07
15	Magnesium (as Mg)	mg/l	30	100	6.5
16	Manganese (as Mn)	mg/l	0.1	0.3	<0.02
17	Nitrate (as NO <sub>3</sub> )	mg/l	45	No Relaxation	4.2
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	0.9
21	Alkalinity (as CaCO <sub>3</sub> )	mg/l	200	600	33.0
22	Total Hardness (as CaCO <sub>3</sub> )	mg/l	300	600	50.0
23	Cadmium (as Cd)	mg/l	0.003	No Relaxation	<0.001
24	Cyanide ( as CN )	mg/l	0.05	No Relaxation	<0.01
25	Lead (as Pb )	mg/l	0.01	No Relaxation	<0.005
26	Mercury (as Hg )	mg/l	0.001	No Relaxation	<0.001
27	Arsenic( as As )	mg/l	0.01	0.05	<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	Polly nuclear Aromatic hydrocarbon	mg/l	0.0001	No Relaxation	<0.005

Checked by :




For Mitra S.K. Private Limited

Authorised Signatory



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

T : 06767-275209, 94370-75269  
 E : [barbil@mitrasck.co.in](mailto:barbil@mitrasck.co.in)  
**Ref. No. BBL/ENV/3034**

**DATE: 03/03/2022**

## CERTIFICATE OF ANALYSIS


<b>Name of the industry</b>	: M/s. SHIVA CEMENT LIMITED
<b>Address</b>	: Teleghana, Kutra, Dist. Sundargarh (Odisha)
<b>Sampling Location</b>	: Bore well Water No.-2 (Near Coal Yard)
<b>Date of sampling</b>	: 17/02/2022

### MICROBIOLOGICAL ANALYSIS OF WATER AS PER IS: 10500 – 2012

Sl No.	Test Parameters	Norms as per IS:10500-2012	Results
1	Total Coliform MPN/100ml	10 (MAX)	<2.0
2	Faecal Coliforms MPN/10	Not Detected	Not Detected
3	E. Coli MPN/10	Not Detected	Not Detected

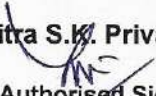
### CHEMICAL ANALYSIS OF WATER AS PER IS: 10500 – 2012

Sl. No.	Test Parameters	UOM	Norms as per IS: 10500-2012		Results
			Desirable Limit	Permissible Limit	
1	Colour	Hazen	5	15	<1.0
2	Odour	---	Agreeable	Agreeable	Unobjectionable
3	pH at 26°C	---	6.5-8.5	No Relaxation	6.52
4	Turbidity	NTU	1	5	<1.0
5	Total Dissolved Solids (as TDS)	mg/l	500	2000	58.0
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	0.5	1.0	<0.5
9	Calcium (as Ca)	mg/l	75	200	11.0
10	Chloride (as Cl)	mg/l	250	1000	5.8
11	Copper (as Cu)	mg/l	0.05	1.5	<0.02
12	Fluoride ( as F )	mg/l	1.0	1.5	0.24
13	Free Residual Chlorine	mg/l	0.2	1.0	<0.1
14	Iron (as Fe)	mg/l	0.3	No Relaxation	0.23
15	Magnesium (as Mg)	mg/l	30	100	2.8
16	Manganese (as Mn)	mg/l	0.1	0.3	<0.02
17	Nitrate (as NO3 )	mg/l	45	No Relaxation	3.9
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	<1.0
21	Alkalinity (as CaCO <sub>3</sub> )	mg/l	200	600	29.0
22	Total Hardness (as CaCO <sub>3</sub> )	mg/l	300	600	39.0
23	Cadmium (as Cd)	mg/l	0.003	No Relaxation	<0.001
24	Cyanide ( as CN)	mg/l	0.05	No Relaxation	<0.01
25	Lead (as Pb)	mg/l	0.01	No Relaxation	<0.005
26	Mercury (as Hg)	mg/l	0.001	No Relaxation	<0.001
27	Arsenic( as As)	mg/l	0.01	0.05	<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	Polly nuclear Aromatic hydrocarbon	mg/l	0.0001	No Relaxation	<0.005

Checked by : 



For Mitra S.K. Private Limited

  
 Authorised Signatory



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

T : 06767-275209, 94370-75269  
Ref No: BBL/ENV/3035

DATE: 03/03/2022

## CERTIFICATE OF ANALYSIS

<b>Name of the industry</b>	: M/s. SHIVA CEMENT LIMITED
<b>Address</b>	: Teleghana, Kutra, Dist. Sundargarh (Odisha)
<b>Sampling Location</b>	: Bore well Water No.-3 (Near Cement Mill)
<b>Date of sampling</b>	: 17/02/2022

### MICROBIOLOGICAL ANALYSIS OF WATER AS PER IS: 10500 – 2012

Sl No.	Test Parameters	Norms as per IS:10500-2012	Results
1	Total Coliform MPN/100ml	10 (MAX)	<2.0
2	Faecal Coliforms MPN/10	Not Detected	Not Detected
3	E. Coli MPN/10	Not Detected	Not Detected

### CHEMICAL ANALYSIS OF WATER AS PER IS: 10500 – 2012

Sl. No.	Test Parameters	UOM	Norms as per IS: 10500-2012		Results
			Desirable Limit	Permissible Limit	
1	Colour	Hazen	5	15	<1.0
2	Odour	---	Agreeable	Agreeable	Unobjectionable
3	pH at 26°C	---	6.5-8.5	No Relaxation	6.73
4	Turbidity	NTU	1	5	<1.0
5	Total Dissolved Solids (as TDS)	mg/l	500	2000	112.0
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	0.5	1.0	<0.5
9	Calcium (as Ca)	mg/l	75	200	17.0
10	Chloride (as Cl )	mg/l	250	1000	9.6
11	Copper (as Cu)	mg/l	0.05	1.5	<0.02
12	Fluoride ( as F )	mg/l	1.0	1.5	0.12
13	Free Residual Chlorine	mg/l	0.2	1.0	<0.1
14	Iron (as Fe)	mg/l	0.3	No Relaxation	0.27
15	Magnesium (as Mg)	mg/l	30	100	7.4
16	Manganese (as Mn)	mg/l	0.1	0.3	<0.02
17	Nitrate (as NO <sub>3</sub> )	mg/l	45	No Relaxation	6.0
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	29.0
21	Alkalinity (as CaCO <sub>3</sub> )	mg/l	200	600	25.0
22	Total Hardness (as CaCO <sub>3</sub> )	mg/l	300	600	74.0
23	Cadmium (as Cd)	mg/l	0.003	No Relaxation	<0.001
24	Cyanide ( as CN )	mg/l	0.05	No Relaxation	<0.01
25	Lead (as Pb )	mg/l	0.01	No Relaxation	<0.005
26	Mercury (as Hg )	mg/l	0.001	No Relaxation	<0.001
27	Arsenic( as As )	mg/l	0.01	0.05	<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	Polly nuclear Aromatic hydrocarbon	mg/l	0.0001	No Relaxation	<0.005

Checked by :




For Mitra S.K. Private Limited

Authorised Signatory



# Mitra S. K. Private Limited



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

T : 06767-275209, 94370-75269  
E : barbil@mitrask.co.in

Ref. No.BBL/ENV/3036

Date: 03/03/2022

## GROUND WATER LEVEL MONITORING

<b>Name of the industry:</b>	<b>M/s. SHIVA CEMENT LIMITED</b>	
<b>Address:</b>	Teleghana, Kutra, Dist. Sundargarh (Odisha)	
<b>Date of Monitoring</b>	<b>Location</b>	<b>Water Level below (in meters)</b>
16.02.2022	Bore well No.-1 (Back Side Kiln)	9.95
16.02.2022	Bore well No.-2 (Near Coal Yard)	13.50
16.02.2022	Bore well No.-3 (Plant Site)	13.85

Checked by:-



For Mitra S. K. Private Limited

Authorised Signatory

**ENVIRONMENTAL MONITORING REPORT  
FOR THE MONTH OF MARCH  
2022**

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**At the request of:**

**M/S. SHIVA CEMENT LIMITED**

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

\*\*\*\*\*

**Conducted By:**



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

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



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


T : 06767-275209, 94370-75269  
 E : barbil@mitrask.co.in

Ref. No. BBL/ENV/3131

DATE: 04/04/2022

## ANALYSIS REPORT OF AMBIENT AIR

<b>Name of the Industry:</b>		<b>M/s. SHIVA CEMENT LIMITED</b>					
<b>Address :</b>		<b>Teleghana, Kutra, Dist. Sundargarh (Odisha)</b>					
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	24/25.03.2022	Near Main Gate	66.5	36.7	7.2	21.8	0.33
2	24/25.03.2022	Near TG Building	58.3	31.6	6.4	19.2	0.26
3	24/25.03.2022	Clinker Bulk loading Area.	61.2	33.8	6.6	20.4	0.28
4	25/26.03.2022	Colony Area of SCL	53.8	29.1	6.2	18.6	0.25
<b>Limit as per CPCB notification, New Delhi, 18th Nov, 2009. for Ambient air quality</b>			<b>100</b>	<b>60</b>	<b>80</b>	<b>80</b>	<b>2</b>
<b>Sampling and Analysis done according to</b>			<b>IS: 5182 (Part-23) - 1999</b>	<b>USEPA CFR-40, (Part-50), Appendix-L</b>	<b>IS: 5182 (Part-2) -2001</b>	<b>IS: 5182 (Part- 6) -2006</b>	<b>IS: 5182 (Part.10) -1999</b>
Barometric pressure (mm of Hg) : 750			Temperature °C : 26-38		Climatic condition : Clear & Sunny		

Checked by:- 



For Mitra S. K. Private Limited

  
 Authorised Signatory

AVP.O. : BARBIL Ward No - 6  
 Dist. : Keonjhar, Odisha - 758035  
 CIN : U51909WB1956PTC023037

T : 06767-275209, 94370-75269  
 E : barbil@mitrask.co.in

Ref. No. BBL/ENV/3132

DATE: 04/04/2022

## CERTIFICATE OF NOISE MONITORING

Name of the Industry :		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 Area	24/25.03.2022	51.4	31.3	37.5
2.	Raw Mill Area	24/25.03.2022	52.0	32.1	38.2
3.	Coal mill Area	24/25.03.2022	52.6	32.4	38.6
4.	Cement Mill Area	24/25.03.2022	53.1	32.9	39.5
5.	Main Gate Area	24/25.03.2022	54.8	37.8	41.7
6.	Colony Area	24/25.03.2022	49.1	30.8	35.9

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	SILENE ZONE	50	40

Checked by:- 



For Mitra S. K. Private Limited

  
 Authorised Signatory



# Mitra S. K. Private Limited



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


T : 06767-275209, 94370-75269  
E : barbil@mitrask.co.in

Ref. No.BBL/ENV/3133

Date: 04/04/2022


## GROUND WATER LEVEL MONITORING

Name of the industry:	M/s. SHIVA CEMENT LIMITED	
Address:	Teleghana, Kutra, Dist. Sundargarh (Odisha)	
Date of Monitoring	Location	Water Level below (in meters)
26.03.2022	Bore well No.-1 (Back Side Kiln)	8.85
26.03.2022	Bore well No.-2 (Near Coal Yard)	13.60
26.03.2022	Bore well No.-3 (Plant Site)	16.80

Checked by: 



For Mitra S. K. Private Limited



Authorised Signatory

<b>Plantation Details of Shiva Cement Limited till Now</b>				
<b>S.No</b>	<b>Year</b>	<b>No. Plant Planted</b>	<b>Area in acre.</b>	<b>Type of Species</b>
1	2013-14	160	0.3	Teak,Chakunda,Cashew, Krushna Chuda, Radha, Gulmohar,Guava ,Mango,Neem,Chattian,Areca palm,Palm Karanja etc
2	2014-15	1600	3.5	
3	2015-16	320	1.81	
4	2016-17	400	2.0	
5	2017-18	300	1.0	
6	2018-19	650	1.5	
7	2019-20	650	1.5	
8	2020-21	1000	1.5	
9	2021-22	1000	1.2	



<b>CSR Activities wise budget of Shiva FY 2021-22</b>		
S. No.	Activities	Total
	Targeted	Spend (Rs.Lakh)
<b>A</b>	<b>WAR ON COVID-19</b>	<b>12.63</b>
A.1	Sanitization drives in DIZ villages	0.93
A.2	Support to CHC/PHC (Temporary shed)	0.40
A.3	Awareness Drives in the villages	0.89
A.4	Dry ration to 500 families	8.50
A.5	Mask for communities	0.94
A.6	Sanitizing machines for PHC/CHC	0.97
<b>B</b>	<b>EDUCATION</b>	<b>17.54</b>
B.1	Infrastructure development in Schools	9.77
B.2	Observing special days	1.89
B.3	Study Material Kit to student	1.96
B.4	Renovation of Anganwadi	3.92
<b>C</b>	<b>HEALTHCARE</b>	<b>21.00</b>
C.1	Anti malarial Fogging in DIZ Villages	10.00
C.2	Mobile Health Camps/Develop Fitness Centre	11.00
<b>D</b>	<b>LIVELIHOOD</b>	<b>28.26</b>
D.1	Providing training on tailoring/mushroom cultivation	10.47
D.2	Pond cleaning and Fish farming	2.90
D.3	Promotion of organic farming	9.92
D.4	Outcome/Impact study/Organizing trade fair	4.97
<b>E</b>	<b>RURAL DEVELOPMENT</b>	<b>73.24</b>
E.1	Renovation of Community Halls	9.89
E.2	Construction of Community Hall	17.74
E.3	Solar water supply	15.00
E.4	Solar street lights	17.87
E.5	HAQDARSHAK- help beneficiaries to discover, apply for and benefit from eligible Govt. schemes.	7.95
E.6	Plantation	4.79
<b>F</b>	<b>SPORTS PROMOTION</b>	<b>4.48</b>
F.1	Provide sports equipment to rural youth	2.65
F.2	Conduct inter village sports competitions	1.83
<b>G</b>	<b>OVERHEADS</b>	<b>2.00</b>
<b>G.1</b>	<b>Project Management cost, stationary etc</b>	<b>2.00</b>
	<b>TOTAL</b>	<b>159.15</b>

<b>ESC Action Plan of M/s Shiva Cement Limited from 2021-22 to 2027-28</b>									
<b>Sl. No</b>	<b>ESC Activities</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>	<b>Year 7</b>	<b>Total</b>
<b>1</b>	<b>Education</b>	40	40	40	40	50	50	50	<b>310</b>
<b>2</b>	<b>Infrastructure development</b>	40	40	40	45	45	45	50	<b>305</b>
<b>3</b>	<b>Promotion of sports</b>	25	25	25	25	30	30	30	<b>190</b>
<b>4</b>	<b>Skill Development</b>	30	30	30	35	35	35	40	<b>235</b>
<b>5</b>	<b>Drinking water supply</b>	30	30	30	30	30	35	35	<b>220</b>
<b>6</b>	<b>Healthcare</b>	40	40	45	45	45	45	45	<b>305</b>
<b>7</b>	<b>Livelihood Promotion</b>	20	20	20	20	25	25	25	<b>155</b>
<b>8</b>	<b>Rural development</b>	20	20	20	25	25	25	25	<b>160</b>
<b>9</b>	<b>Project management Cost</b>	10	10	10	10	15	15	15	<b>85</b>
<b>10</b>	<b>Environmental Promotion</b>	5	5	5	5	5	5	5	<b>35</b>
	<b>Total (in lakhs)</b>	<b>260</b>	<b>260</b>	<b>265</b>	<b>280</b>	<b>305</b>	<b>310</b>	<b>320</b>	<b>2000</b>



**SHIVA CEMENT LIMITED  
(SCL)**

**CORPORATE ENVIRONMENT POLICY**

## DOCUMENT CONTROL

**Document version:**

This Corporate Environment Policy (Policy) document is version 1.0

**Preparation/Revision History**

SR. No.	Date of preparation / modification	Version No.	Modified by	Reviewed by	Approved by
1	23-09-2020	1.0	Company Secretary	Executive Director	Board of Directors

**Issuing Authority**

This policy is approved by the Board of the Company

**Author and Responsible Official**

This policy is to be maintained and updated by way of additions, deletions and modifications only by the Company Secretary after approval of the Board of Directors. Every time the policy document is edited, the version increases by one unit and the version is to be mentioned on every page.

**Applicability and Usage**

This policy applies to **Shiva Cement Limited**. The Executive Director of the organization shall be authorised by Board to ensure the proper use of this document.





## PREFACE

- The company, Shiva Cement Ltd. recognises its joint responsibility with the Government and the Public to protect environment and is committed to regulate all its activities so as to follow best practicable means for minimising adverse environmental impact arising out of its operations.
- The company is committed in making its products environmentally acceptable, on a scientifically established basis, while fulfilling consumers' requirements for excellent quality, performance and safety.
- The aim of the Policy is to do all that is reasonably practicable to prevent or minimise, encompassing all available knowledge, technology and information, the risk of an adverse environmental impact arising from manufacturing and supply of our products.
- This Policy document reflects the continuing commitment of the Board for sound Environment Management of its operations. The Policy is applicable to all company operations covering manufacturing, mining, sales & distribution and other offices. This document defines the aims and scope of the Policy as well as responsibilities for the achievement of the objectives laid down.

## The Vision

Our vision is to continue to be an environmentally responsible organisation making continuous improvements in the management of the environmental impact of our operations.

We will achieve this through an Integrated Environment Management approach which focuses on Technology & Best Practices and is supported by Management Commitment as the prime driver.

## Environment Policy

Shiva Cement Ltd. (SCL) is committed to meeting the needs of customers and other stakeholders at large in an environmentally sound manner, through continuous improvement in environmental performance in all its activities. Management at all levels, jointly with employees, are responsible and will be held accountable for company's environmental performance.

Accordingly, SCL aims to:

- Compliance to all the applicable rules, regulations, permits and authorizations.
- Protect the environment and prevent pollution through implementing Best Available technologies and practices
- Ensure safety of its products and operations for the environment by using standards of environmental safety, which are scientifically sustainable and commonly acceptable.
- Develop, introduce and maintain environmental management systems across the company to meet the company standards as well as statutory requirements relating to environment and verify compliance with these standards through regular auditing.

- Assess environmental impact of all its activities and set continual improvement objectives and targets and review these periodically to ensure that these are being met at the individual unit and corporate level.
- Reduce waste, conserve energy and explore opportunities for reuse and recycle.
- Maximise utilization of industrial waste as alternative raw materials and fuels to conserve natural resources
- Encourage efficient use of natural resources including energy, water and utilities, fuels, raw materials and food.
- Promote use of renewable energy
- Adopt rainwater harvesting in and around the facilities
- Integrate the consideration of environmental concerns and impacts at the design, planning and operational stages of our activities.
- Develop and maintain procedures/ processes to bring into focus any infringement/ deviation/ violation of the environmental or forest norms/ conditions to the Board of Directors and stakeholders at large
- Involve all employees in the implementation of this Policy and provide appropriate training. Dissemination of information to employees on environmental objectives and performance through suitable communication networks.
- Encourage suppliers & service providers to develop and employ environmentally superior processes and co-operate with other members of the supply chain to improve overall environmental performance.
- Work in partnership with external bodies and Government agencies to promote environmental care, increase understanding of environmental issues and disseminate good practices.

### **CORPORATE RESPONSIBILITIES**

The Executive Director of the Company is responsible for the Compliance of the Policy. The Executive Director may constitute a Committee called as Corporate Environment Committee (hereinafter called as Committee). The Committee is committed to conduct the company operations in an environmentally sound manner. The Committee will:

- Set standards and establish environmental improvement objectives and targets for SCL as a whole and for individual units, and ensure these are included in the annual operating plans.
- Formally review environment performance of the company once every quarter.
- Review environment performance when visiting units and recognise exemplary performance.
- Nominate a unit head or senior employee as coordinator for compliance of environmental performance at the site.



The Committee, through the nominated coordinator will:

- Ensure implementation of Policy on environment and compliance with the Company's environmental standards and the standards stipulated under relevant national / local legislation. Where appropriate, apply more stringent criteria than those required by law.
- Assess environmental impact of SCL operations and establish strategies for sound environment management and key implementation steps.
- Encourage development of cleaner manufacturing processes to further raise the standards of environment performance.
- Establish appropriate management systems for environment management and ensure regular auditing to verify compliance.
- Establish systems for appropriate training in implementation of Environment Management Systems at work.
- Ensure that all employees are made aware of individual and collective responsibilities towards environment.
- Arrange for expert advice on all aspects of environment management.
- Participate, wherever possible, with appropriate industry and Government bodies advising on environmental legislation and interact with national and local authorities concerned with protection of environment.

### **INDIVIDUAL UNIT'S RESPONSIBILITIES**

The overall responsibility for environment management at each unit will rest with the unit head or senior employee, who will ensure implementation of Policy on environment at unit level and report to Executive Director or Committee as the case may be. Concerned line managers / heads of departments are responsible for environmental performance at department levels.

In order to fulfil the requirements of the Policy at each site, the Unit Head will:

- Designate a unit environment coordinator who will be responsible for co-ordinating environmental activities at unit, collating environmental data and providing / arranging for expert advice.
- Specific environmental improvement objectives and targets for the unit and ensure that these are incorporated in the annual objectives of the concerned managers and officers and are reviewed periodically.
- Ensure that the unit complies with SCL's environmental standards and the relevant national and state regulations with respect to environment.
- Ensure formal environmental risk assessment to identify associated environmental aspects and take appropriate steps to control risks at acceptable levels.





- Ensure that all new operations are subjected to a systematic and formal analysis to assess environmental impact. Findings of such exercises should be implemented prior to commencement of the activity.
- Manage change in people, technology and processes through a planned approach based on training, risk assessment, pre-commissioning audits and adherence to design norms.
- Regularly review environment performance of the unit against set objectives and targets and strive for continual improvement.
- Sustain a high degree of environmental awareness through regular promotional campaigns and employee participation through training, safety committees, emergency drills etc.
- Ensure dissemination of relevant information on environment within the unit and to outside bodies, and regularly interact with Government authorities concerned for protection of environment.
- Maintain appropriate emergency procedures consistent with available technologies to prevent / control environmental incidents.
- Provide appropriate training to all employees.
- Ensure periodic audits to verify compliance with environment management systems.
- Also ensure periodic 3<sup>rd</sup> party environment audits to check efficacy of the Environment Management Systems.
- Report environmental performance to committee on a monthly basis.

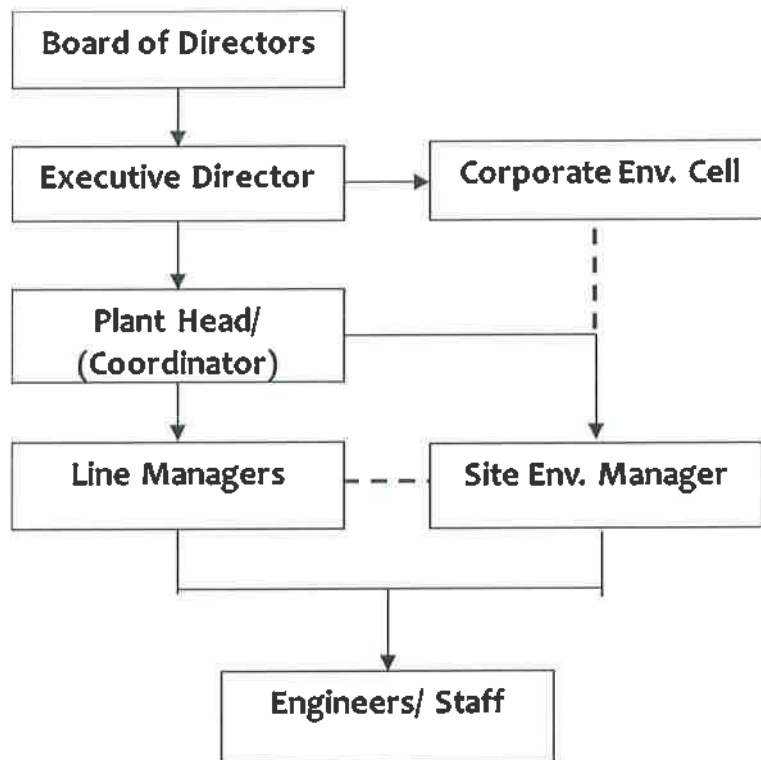
### **Procedure for reporting of Environmental non-compliance or violations**

1. Environmental Nonconforming / noncomplying situation may arise due to:
  - (a) Deviation from key characteristics of operations or other activities significantly affecting the environment.
  - (b) Non-fulfillment of the Legislation and/or Regulatory or Company's requirements.
  - (c) Non-fulfillment of/deviation from the documented requirements
2. Any Environmental Nonconformity (NC) in the plant premises detected is to be reported to Env. Cell. Env. Cell shall subsequently investigate the root cause & take appropriate corrective & preventive actions consistent with the nature of the NC.
3. Daily review meetings are conducted by the Unit Head and reported to the CEO and Wholetime Director. In case any non-compliance or violation of environmental parameters/norms/regulations etc., is observed or reported, the same is brought to the notice of the Unit Head (during the daily review meeting). In case the non-compliance or violation is of manageable nature, Unit Head issues instructions and sanctions appropriate budget and resources to rectify the same. If the problem is of higher magnitude, Unit head seeks financial approval from the CEO & Wholetime Director. All the instances of non-compliance and violations are brought to the notice

of the CEO & Wholetime Director and action taken report submitted on regular basis. The CEO is appraised regularly till the problem is resolved.

4. All non-compliances/ violations are subject to root cause analysis and accordingly a corrective action plan is prepared and implemented within the agreed time frame. Till the time a permanent solution / corrective action is implemented, the task is carried out under constant supervision.

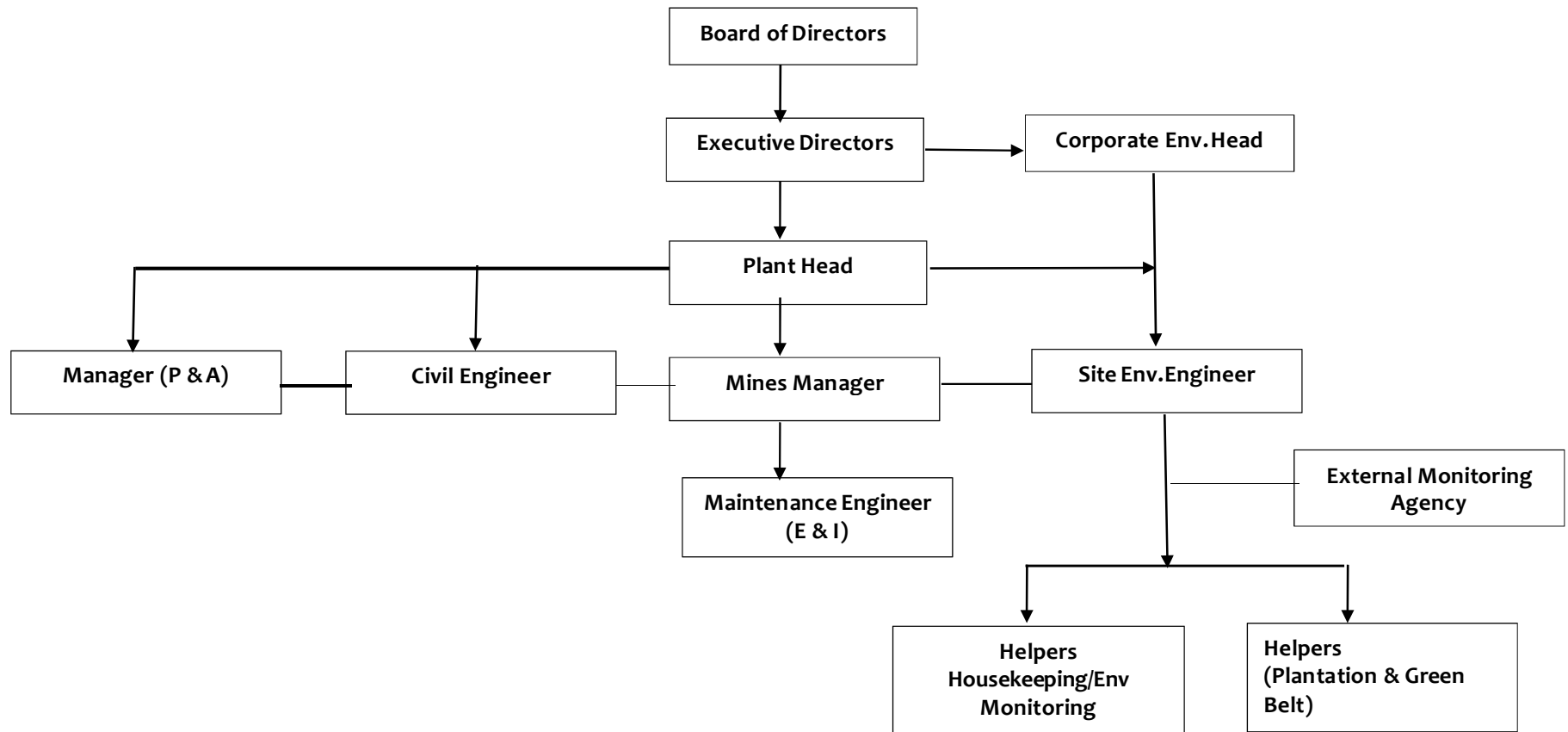
The hierarchical system of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions is given below:







## ORGANIZATION STRUCTURE OF EMC – Shiva Cement Ltd.



# ଶିକ୍ଷା ସିମେଣ୍ଟ ଲିମିଟେଡ

ପି-୨୫, ସିରିଲ୍ ଗାର୍ଡନସିଟ  
ଭାରତକୋଲା - ୭୬୧ ୦୭୪, ଓଡ଼ିଶା

## ସାଧାରଣ ବିଜ୍ଞପ୍ତି

ଏତଦ୍ୱାରା ସର୍ବସାଧାରଣଙ୍କ ଅବଗତ କରିମନ୍ତେ ଜଣାଇ ଦିଆଯାଉଛି ଯେ, ମେସର୍ସ ଶିକ୍ଷା ସିମେଣ୍ଟ ଲିମିଟେଡ, ଓଡ଼ିଶା ରାଜ୍ୟର ସୁନ୍ଦରଗଡ଼ ଜିଲ୍ଲା ଅନ୍ତର୍ଗତ ରାଜଗାଙ୍ଗପୁର ତହସିଲ୍ଦାର ତେଲିଘଣା ଗ୍ରାମରେ ନିଜସ୍ୱ ସିମେଣ୍ଟ ପ୍ରାକ୍ଟର ସଂପ୍ରସାରଣ ତଥା (ଗାର୍ଡିନ ୦.୧୧୫ରୁ ୦.୮୨୫ ନିୟୁଟ ମେଟ୍ରିକଟନ୍ ବିଜ୍ଞର ଓ ୦.୧୩୨ ରୁ ୧.୦୫ ନିୟୁଟ ମେଟ୍ରିକଟନ୍ ସିମେଣ୍ଟ) ପାଇଁ ଭାରତ ସରକାରଙ୍କ ପରିବେଶ ଓ ଜଙ୍ଗଲ ମନ୍ତ୍ରଣାଳୟଙ୍କ ପକ୍ଷରୁ ଚିଠି ନଂ- କେ-୧୧୦୧୧/୮୪/୨୦୦୮-ଆଇ.ଏ.ଆଇ ଆଇ (ଆଇ) ତା.୨୩.୦୫.୨୦୧୧ରିଖ ଦ୍ୱାରା ପରିବେଶ ସଂକ୍ରାନ୍ତୀୟ ଅନୁମତି ପାଇଛନ୍ତି ।

ଅନୁମତି ସମ୍ପର୍କିତ ଚିଠିର ନକଲ ରାଜ୍ୟ ପ୍ରତ୍ନତ୍ତ୍ୱ ନିୟନ୍ତ୍ରଣ ବୋର୍ଡ, ଭୁବନେଶ୍ୱରଙ୍କ ନିକଟରେ ଉପଲବ୍ଧ ଅଟେ । ଏହା ବ୍ୟତିତ ପରିବେଶ ଓ ଜଙ୍ଗଲ ମନ୍ତ୍ରଣାଳୟ କେବସାଇଟ <http://moef.nic.in> ଠିକଣାରେ ମଧ୍ୟ ଏହା ଅବଗତ କରାଯାଇ ପାରିବ ।

ଆଇ.କେ.ଭାସ  
କମ୍ପାନୀ ସେକ୍ରେଟାରୀ









CIN L26942OR1985PLC001557

**SHIVA  
CEMENT  
LIMITED**

AT. : TELEGHANA  
P.O. : BRINGATOLI  
TEHSIL : KUTRA  
DIST. : SUNDARGARH,  
ODISHA. INDIA. PIN-770018

SCL/6000-09/2021/38

21.09.2021

To

Sr. Environmental Engineer (C )  
State Pollution Control Board, Odisha  
Department of Forest & Environment, Govt. of Odisha  
ParibeshBhawan, A/118, Nilakantha Nagar, Unit – VIII  
Bhubaneswar – 751012, Odisha.

Sub: Environmental Statement for the financial year ending 31<sup>st</sup> March, 2021 for M/s Shiva  
Cement Limited.

Dear Sir

With reference to the above mentioned subject, please find enclosed Environmental Statement in Form V prescribed under Rule 14 of the Environment (Protection) Rules 1986, for M/s Shiva Cement Limited for the financial year ending 31<sup>st</sup> March 2021.

Kindly acknowledge the receipt.

Thanking You,

Yours faithfully,  
For M/s SHIVA CEMENT LIMITED

Anil Mishra  
(Unit Head)

Encl:

Annual Environment Statement for the FY 2020-21

Copy to:

Regional Officer, OSPCB, Sector – 5, Rourkela – 769002, Dist. Sundargarh (Odisha)

[FORM – V]

(See Rule 14)

**Environmental statement for the financial year ending the 31<sup>st</sup> March 2021**

**PART – A**

- (i) Name and address of the owner/occupier of : **SRI MANOJ KUMAR RUSTAGI**  
the industry operation or process **M/s. Shiva Cement Limited**  
**Vill : Telighana, PO. Biringatoli,**  
**Via. Kutra, Dt. Sundargarh (Odisha)**  
**PIN - 770018**
- (ii) Industry category Primary – (STC Code) : **NA**  
Secondary – (SIC Code) : **3241**
- (iii) Production Capacity – Units : **Cement:0.252 MTPA**  
**Clinker: 0.165 MTPA**
- (iv) Year of Establishment : **1998**
- (v) Date of last environmental statement submitted: **17.08.2020**

**PART – B**

**Water and Raw Material Consumption**

- (i) Water consumption m<sup>3</sup>/d
- Process : N.A
- Cooling : 75 M<sup>3</sup>
- Domestic : 25 M<sup>3</sup>

Name of Products	Process water consumption per unit of product output	
	During the previous financial year	During the current financial year
	(1)	(2)
<b>CEMENT</b>	<b>Not Applicable</b>	<b>Not Applicable</b>

Substituted by Rule 2 (b) of Environment (Protection) Amendment Rules, 1993 notified vide G.S.R 386 (E) dated 22.04.1993.

**(ii) Raw material consumption**

Name of materials	Name of Products	Consumption of raw material per unit of out put	
		During the previous financial year (MT)	During the current financial year (MT)
Limestone	Clinker	1.43	1.26
Additive	Clinker	0.09	0.22
Coal	Clinker	0.32	0.28
Slag	Cement	0.45	0.16
Gypsum	Cement	0.04	0.05

\*Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw materials used.

// 2 //

**PART – C**

**Pollution discharged to environment / unit of out put  
(Parameter as specified in the consent issued)**

(1) Pollutants	Quality of Pollutants discharged (mass/day)	Concentrations of pollutants discharges (Mass/volume) (Mg/Nm <sup>3</sup> )	Percentage of variation from prescribed standards with reasons.
(a) Water	Nil	NA	NA
(b) Air	Kiln Stack	25.44	Within the prescribed Limited
	Raw Mill Stack	25.34	
	Coal Mill Stack	23.86	
	Cement Mill	22.96	

**PART – D****HAZARDOUS WASTES**

**[(As specified under {Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008}]**

Hazardous Wastes	Total Quantity (Kg)	
	During the previous financial year	During the current financial year
	<b>220 Litrs.</b>	<b>52Litrs.</b>

Hazardous wastes (Management, Handling and Transboundary Movements) Rules, 2008 notified vide S.O. 2265 (E)

**PART – E  
Solid Wastes**

	Total Quantity	
	During the previous financial year	During the current financial year
	<b>No Solid Waste is being generated from the plant.</b>	<b>No Solid Waste is being generated from the plant.</b>

(a) From process: NIL

(b) From pollution control facilities: **Dust Collected by the bag filters is automatically recycled in the process**

(c) (1) Quantity recycled or re-utilized within the unit.

(2) Sold

(3) Disposed



### PART – F

Please specify the characterizations (in terms of composition of quantum of categories of wastes as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

Hazardous Waste			
Sl. No	Name of waste	Generation quantity	Disposal method
1	Used oil /Spent Oil	0.052 KL	✓ Stored in the Impervious layer inside the Hazardous Waste Shed ✓ Sold to Authorized Recyclers /Reprocessors
2	Waste Containing Oil	Nil	✓ Stored in the Impervious layer inside the Hazardous Waste Shed ✓ Sold to Authorized Recyclers /Reprocessors

DPCL has got the authorization from OSPCB vide letter no. IND-IV-HW-894/3729 on dated 24.03.2021 for handling of hazardous waste which is valid till 31.03.2022.

Solid Waste			
Sl. No	Name of waste	Generation quantity	Disposal method
1	Solid Waste	No Solid Waste generated from the Plant	Dust Collected by the bag filters is automatically recycled in the process.

### PART – G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

- Domestic waste water is being treated in soak pit via septic tank.
- Regular monitoring of Ambient Air Quality by a MOEFCC accredited agency to meet the prescribed standard by concerned authority.
- Green belt has been developed inside the plant premises.
- 1 no. of rain water harvesting structure has been developed with recharge well.
- Particulate Emissions are maintained less than 30 mg/Nm<sup>3</sup>.
- All transfer points are provided with bag filters to control the particulate emission and emissions are maintained below 30 mg/Nm<sup>3</sup>.
- Dust collectors and extraction system are installed to control fugitive dust at coal and limestone unloading points and at all the transfer points to arrest dust.
- All the transfer points are provided with dedicated dust collectors. 8 nos of Bag filters are installed at various locations.
- Water spray provided by 2 nos of mobile water tankers to control fugitive emissions generated from roads, raw material sheds.
- Internal roads have been made of concrete.

- Regular cleaning is carried out. CPCB's guideline is followed to control fugitive emission.
- All raw materials are transported through covered trucks. Finished product i.e. cement is transported by covered trucks

#### **PART – H**

Additional measures/investment proposal for environmental protection including abatement of pollution, prevention of pollution.

- Green belt has been developed inside the plant premises.
- 1 no. of rain water harvesting structure has been developed with recharge well.
- All the transfer points are provided with dedicated dust collectors. 8 nos of Bag filters are installed at various locations.
- Water spray provided by 2 nos of mobile water tankers to control fugitive emissions generated from roads, raw material sheds.
- Internal roads have been made of concrete.
- Regular cleaning is carried out. CPCB's guideline is followed to control fugitive emission

#### **PART – I**

Any other particulars for improving the quality of the environment.

Following initiatives taken by M/s Shiva Cement Limited to improve the Environment-

- Concrete road developed in the coal yard area.
- Plantation done in vacant areas.
- Digital water flow meter has been installed in all bore well for tracking the water consumption on regular basis.
- Piezometer has been installed to track the ground water level on regular basis.
- New hazardous Waste Shed has been constructed for storage of hazardous Waste.

**For Shiva Cement Limited**



**Unit Head**

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