Dalmia cement
FUTURE TODAY

cement! sugar! refractories! power!

DCBL/MOEFCC/001/2023-054
May 30, 2023

To,
The Addl. Principal Chief Conservator of Forests (C),
Ministry of Environment, Forest & Climate Change,
Integrated Regional Office (EZ),
A/3, Chandrasekharpur,
Bhubaneswar – 751 023

Sub: **Submission of Six-Monthly Compliance Report of the Environmental Clearance of M/s Dalmia Cement (Bharat) Limited (Line 1 & 2) for the period October-2022 to March-2023.**

Ref: Environmental Clearance vide File No. J-11011/352/2005-IA. II (I) dated 05.04.2007.

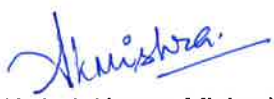
Dear Sir,

With reference to above captioned subject matter, we are submitting herewith the six-monthly compliance report of the conditions laid down in above Environmental clearance for the period October-2022 to March-2023.

Thanking you,

Yours sincerely,

For **Dalmia Cement Bharat Limited,**



(Ashok Kumar Mishra)
General Manager - Environment

Encl: As above.

CC: 1. The Director, Impact Assessment Division, MoEF&CC, New Delhi.
2. The Member Secretary, CPCB, New Delhi.
3. The Member Secretary, OSPCB, Bhubaneswar, Odisha.

Six monthly Compliance report (October, 2022 to March, 2023) of conditions stipulated in Environmental Clearance Letter No. F. No. J-11011/352/2005-1A II (I) dated 5th April 2007, by MoEF&CC for Dalmia Cement (Bharat) Limited, Rajgangpur.

A. SPECIAL CONDITION

Sl. No.	Conditions	Compliance Status
i	The gaseous and particulate matter emissions from various units shall confirm to the standards prescribed by the Orissa State Pollution Control Board (OSPCB). At no time the particulate emissions shall exceed OSPCB. Interlocking facility shall be provided in the pollution control equipment so that in the event of the pollution control equipment not working, the respective unit is shut down automatically.	Complied. The gaseous and particulate matter emissions from various units conforms to the standards as prescribed by OSPCB. The monitored results are attached as **Annexure I**. Interlocking facility has been provided such that in case of failure, the unit will shut down automatically.
ii	Continuous on-line monitoring system to monitor gaseous emission shall be controlled with in 50 mg/Nm3 by installing adequate air pollution control system. On-line monitoring data shall be submitted to the OSPCB and CPCB regularly.	Complied. Continuous online monitoring system has been installed and online data is transmitted to the Board servers. Stack monitoring and ambient air quality monitoring reports are submitted to OSPCB monthly and to Regional Office, MoEF&CC every 6 months.
iii	Ambient Air Quality including ambient noise levels shall not exceed the standards stipulated under EPA or by the State authorities. Monitoring of ambient air quality and stack emission shall be carried out regularly in consultation with OSPCB and report submitted to the OSPCB quarterly and to the ministry's Regional office at Bhubaneswar half -yearly. One ambient air quality monitoring station shall be installed in downwind direction.	Complied. Monitoring of ambient air quality including noise levels is carried out regularly and the values conform to the prescribed standard limits. Reports are submitted to the statutory body regularly. One ambient air quality monitoring station has been installed in downwind direction.
iv	The company shall install adequate dust collection and extraction system to control fugitive dust emission at various transfer points, raw mill handling (unloading, conveying, transporting, stacking), vehicular movement, bagging and packing areas etc. ESP to Cooler, cyclone & bag filter to kiln, CVRM and	Complied. Air pollution control measures & systems are adopted: a. Dust collection extraction system (Bag filters) have been installed and maintained at various transfer points

	bag filters shall be provided in the coal mill and cement mills to control air emissions less than 50 mg/ Nm3. Jet pulse bag filters/ dust extraction system shall be provided to control fugitive emissions in raw material, coal handling & cement grinding areas. Dust suppression system at unloading hoppers, discharge gate of silos and totally closed operations for all belt conveyors & storage etc. shall be used. Raw materials shall store in closed roof sheds & clinker in silos.	such as loading/ unloading areas. Raw materials are transported through closed conveyor belts. b. Coal handling, cement grinding units are equipped with bag filters to control fugitive dust emissions. c. Bag house have been installed for CVRM & Coal mill to maintain stack emission as per standard. d. Road sweeping machines are deployed for regular cleaning of roads. Internal roads are concreted and water sprinkling on the roads are also carried out. e. Belt conveyors are thoroughly hood covered. f. Clinker is stored in clinker silo & transported by hatch adopter system. g. Raw material handling & its storing is carried out by closed shed. h. Water sprinkling dust suppression systems are installed at raw material handling yards.
v	Asphalting/concerning of roads and water spray all around the coal stockpiles shall be carried out to control fugitive emissions.	Complied. Roads are either black topped or concreted and water spraying is done on the coal stock piles to control fugitive dust emissions.
vi	Total water requirement from the Nakti nala and ground water source shall not exceed 5,788 m3/d including 785 m3/d respectively and prior permission for the drawl of ground water from the State water resources/Minor irrigation Deptt./CGWA shall be obtained. All the treated waste water shall be recycled and reused in the process, dust suppression, green belt development and other plant related activities etc. No process wastewater shall be discharged outside the factory premises and 'zero' discharge shall be adopted. Domestic effluent treated in Sewage Treatment Plant (STP) shall be used for green belt development within the plant and colony area.	Complied. • The total water requirement is well within 5799 m^3/day. • No ground water is used for industrial purposes. • Treated wastewater is recycled and reused for dust suppression, green belt development and other low end used within the plant premises. • Domestic sewage is treated in the STP.
vii	All the cement dust collected from pollution control devices shall be recycled and reutilized in the process. Char from sponge iron plant of M/s. OCL shall be used as raw material in manufacturing cement and mixed with	Complied. a.) Dust collected from pollution control devices is recycled and reutilized in the process. b.) Char is used as raw material, as

	feed. Hazardous waste viz. Used oil from gear boxes and automotive batteries, etc shall be properly stored in a designated area and sold to authorized recyclers/ re processors.	per availability. c.) Used oil & batteries are stored at designated places before being disposed off to authorized recyclers/re-processors.
viii	The company must harvest the rainwater from the roof tops and storm water drains to recharge the ground water and use the same water for the various activities of the project to conserve fresh water.	Being Complied. Rain water from roof tops and storm water drains is collected and stored in an earthen reservoir to facilitate recharge of ground water and the same water is reused for various activities within the plant premises.
ix	Green belt shall be developed in at least 28.0 ha out of total 91.15 ha land in consultation with the local DFO as per the CPCB guidelines.	Complied. Green Belt cover has been developed in and around the plant as per CPCB guidelines. Gap filling is also carried out owing to survival rate of 80%. Efforts are being taken to increase the survival rate beyond 90%. 2272 number of saplings were planted last year. Native species are being planted.
x	The company shall undertake eco-development measures including community welfare measures in the project area.	Complied. Company has been continuously doing eco-development work in the surrounding community through CSR team.
xi	All the recommendation mentioned in the Charter on the Corporate Responsibility for Environmental Protection (CREP) shall be strictly followed.	Being Complied. All the CREP recommendations as per the Charter are being adhered to.
xii	High calorific hazardous waste shall be used as fuel in the cement kiln. Accordingly, provision to be made in the kiln.	Complied. High calorific hazardous waste is used as fuel in cement kiln and accordingly provision has been made in the Kiln.
xiii	Prior permission from the State Forest Department shall be obtained regarding likely impact of proposed expansion on the reserve forest viz. Gudiali RF (3km), Tunmura RF (6.5 km) Chudia RF (6.5 km) and Hathidhara R.F. (4 km) and recommendations/ suggestion, if any shall be implemented in a time bound manner.	Being Complied. All raw material transportation is being done through closed circuit conveyor belts from mines to cement plant. Maximum transportation is being done through railway rakes.

B. GENERAL CONDITION:

Sl. No.	Conditions	Compliance Status
i	The project authority must adhere to the stipulation made by Orissa State Pollution Control Board and State Government.	Complied. All stipulations made by OSPCB and State Govt. are being strictly adhered to.
ii	No expansion or modification of the plant should be carried out without prior approval of this Ministry.	Complied. No expansion or modification of the plant has been carried out without prior approval of the Ministry.
iii	Adequate number of ambient air quality-monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of SO2 and NOX are anticipated in consultation with the OSPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including Regional Office at Bhubaneswar and OSPCB once in six months.	Complied. Four numbers of ambient air quality monitoring stations have been installed covering upwind and downwind directions in consultation with OSPCB. Data is being transmitted to the Board server on a continuous basis.
iv	Industrial wastewater shall be properly collected, treated so as to confirm 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 waste water shall be recycled in the plant as well as utilization for plantation purposes.	Complied. Waste water generated in the plant is treated in the effluent treatment plant (ETP) and the treated wastewater conforms to the prescribed limits as specified by OSPCB in the consent order. The treated water is utilized in the plant for machineries cooling, sprinkling on road & plantation purposes.
v	The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous waste in accordance with the Hazardous Waste (Management and Handling) Rules, 2003. Authorization from the OSPCB must be obtained for collection, storage, treatment and disposal of hazardous wastes.	Complied. The Hazardous Wastes are being handled and disposed off as per HOWM Rules, 2016 and amendments thereof.
vi	The overall noise levels in and around the plant area shall be kept well within the standards (85dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall confirm to the standards prescribed under EPA Rules, 1986 viz. 75 dBA (day time) and 70 dBA (night time).	Complied. The overall noise levels in and around the plant area conforms to the prescribed standards.
vii	The project proponent shall comply with all the environmental protection measures	Complied.

	and safeguards recommended in the Environmental Impact Assessment / Environmental management Plan.	
viii	As proposed in EIA / EMP, Rs.31.82 Crores and Rs.2.64 Crores earmarked toward the capital cost and recurring the expenditure / annum for environmental protection measures shall be used judiciously to implement the conditions as well as Ministry of Environment and forests as well as the State Government. The funds so provided shall not be diverted for any other purposes.	Complied. The environmental protection measures have been implemented with the funds allocated for the purpose and the funds have not been diverted for any other purpose.
ix	The Regional Office of this Ministry at Bhubaneswar / Central Pollution Control Board / OSPCB shall monitor the stipulated conditions. A six-monthly compliance report and the monitored data along with statistical interpretation should be submitted to them regularly	Complied. Six monthly compliance reports along with the monitored data are submitted to the statutory bodies regularly.
x	The project authorities should inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the state pollution Control Board / Committee and may also be seen at Website of the Ministry of Environment and Forests at http:/envfor.nic.in This shall be advertised within seven days from the date of issues of the clearance letter at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional office.	Complied The grant of Environmental Clearance has been published in two local newspapers i.e. “The Samaj” (Odia) and “The New Indian Express “(English) dated 11.04.2007
xi	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.	Complied. Noted.

ENVIRONMENTAL MONITORING REPORT

BASED ON DATA GENERATED

FROM

OCTOBER 2022 TO MARCH 2023

FOR

DALMIA CEMENT (BHARAT) LIMITED

At/Po: RAJGANGPUR, District: SUNDARGARH, ODISHA

AT

CEMENT PLANT (LINE – 1 & LINE - 2)

Prepared by: Environment Management Department
Dalmia Cement (Bharat) Limited, Rajgangpur, Odisha

Cleenviron Private Limited

Consultant and Engineers in Environmental Pollution Control & Monitoring with NABL Accredited Laboratory.

TC - 6816

TEST REPORT FOR STACK EMISSION MONITORING

FORMAT NO: CPL/FM/58

ULR – TC681623000000732F
REPORT NO: CPL/R/SE/MAR-23/67

REPORT ISSUE DATE: 27.03.2023

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer : RGP Cement Factory, Rajgangpur – 770017, Dist: Sundargarh, Odisha
Sampling Method : IS 11255 (Part – 1): 1985, RA 2019

Sample ID No	:	CPL/SE/MAR-23/50
Location of Sampling	:	Line – 1
Date of Sampling	:	21.03.2023
Time of Sampling	:	10:02 Hrs
Duration of Sampling	:	24 min
Sample Received on	:	21.03.2023
Date of Test	:	21.03.2023 – 22.03.2023

A.	General Information About the Stack	:		
1.	Stack Connected to	:	KILN & VRM	
2.	Emission Due to	:	Clinker	
3.	Material of Construction of Stack/Duct	:	Steel	
4.	Shape of Stack/Duct	:	Circular	
5.	Whether Stack is provide with Permanent Platform & Ladder	:	Yes	
6.	Capacity	:	-	
7.	Running Load	:	-	
B.	Physical Characteristics of Stack	:		
1.	Height of Stack from Ground Level	:	60 m	
2.	Height of Sampling Port from Ground Level	:	NA	
3.	Diameter/Dimension of Stack/ Duct at sampling point	:	2.8 m	
C.	PARAMETERS ANALYSED		METHODS OF ANALYSIS	RESULTS OBTAINED / PERMISSIBLE LIMIT AS PER CTO
1.	Ambient Temperature (°C)		IS 11255 Part – 3, 1985 (RA 2018)	27 / -
2.	Temperature of Gas Emission (°C)		IS 11255 Part – 3, 1985 (RA 2018)	169 / -
3.	Barometric Pressure (mm Hg)		IS 11255 Part – 3, 1985 (RA 2018)	748 / -
4.	Velocity of Gas Emitted (m/sec)		IS 11255 Part – 3, 1985 (RA 2018)	14.62 / -
5.	Quantity of Gas Emitted (Nm^3/hr)		IS 11255 Part – 3, 1985 (RA 2018)	2, 13, 787.89 / -
6.	Particulate Matter Concentration (mg/Nm^3)		IS 11255 Part – 1, 1985 (RA 2019)	10 / 30
1.	Sulphur Dioxide(SO_2) Concentration (mg/Nm^3)		IS 11255 Part – 2, 1985 (RA 2014)	21.60 / 100
2.	Nitrogen Dioxide (NO_2) Concentration (mg/Nm^3)		IS 11255 Part – 7, 2005 (RA 2017)	444.5 / 800
D.	Pollution Control Device Installed		ESP	

Test Done By

CLEENVIRON PRIVATE LIMITED ROURKELA

Verified By

Authorized Signatory
Subhanga Praharaj
Managing Director

*****END OF TEST REPORT*****

Registered Office:
D/318, KOELNAGAR, ROURKELA – 769014, Dist: SUNDARGARH, ODISHA

Branch Office & Laboratory:
D/124, KOELNAGAR, ROURKELA – 769014, Dist: SUNDARGARH, ODISHA

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Cleenviron Private Limited

Consultant and Engineers in Environmental Pollution Control & Monitoring with NABL Accredited Laboratory.

TC - 6816

TEST REPORT FOR STACK EMISSION MONITORING

FORMAT NO: CPL/FM/58

ULR – TC681623000000734F
REPORT NO: CPL/R/SE/MAR-23/69

REPORT ISSUE DATE: 27.03.2023

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer : RGP Cement Factory, Rajgangpur – 770017, Dist: Sundargarh, Odisha
Sampling Method : IS 11255 (Part – 1): 1985, RA 2019

Sample ID No	:	CPL/SE/MAR-23/51
Location of Sampling	:	Line – 1
Date of Sampling	:	21.03.2023
Time of Sampling	:	10:50 Hrs
Duration of Sampling	:	33 min
Sample Received on	:	21.03.2023
Date of Test	:	21.03.2023 – 22.03.2023

A.	**General Information About the Stack**	:		
1.	Stack Connected to	:	Coal Mill	
2.	Emission Due to	:	Coal	
3.	Material of Construction of Stack/Duct	:	Steel	
4.	Shape of Stack/Duct	:	Circular	
5.	Whether Stack is provide with Permanent Platform & Ladder	:	Yes	
6.	Capacity	:	-	
7.	Running Load	:	-	
B.	**Physical Characteristics of Stack**	:		
1.	Height of Stack from Ground Level	:	42.8 m	
2.	Height of Sampling Port from Ground Level	:	NA	
3.	Diameter/Dimension of Stack/ Duct at sampling point	:	1.5 m	
C.	**PARAMETERS ANALYSED**	**METHODS OF ANALYSIS**	**RESULTS OBTAINED**	**PERMISSIBLE LIMIT AS PER CTO**
1.	Ambient Temperature (°C)	IS 11255 Part – 3, 1985 (RA 2018)	29	-
2.	Temperature of Gas Emission (°C)	IS 11255 Part – 3, 1985 (RA 2018)	78	-
3.	Barometric Pressure (mm Hg)	IS 11255 Part – 3, 1985 (RA 2018)	748	-
4.	Velocity of Gas Emitted (m/sec)	IS 11255 Part – 3, 1985 (RA 2018)	8.35	-
5.	Quantity of Gas Emitted (Nm^3/hr)	IS 11255 Part – 3, 1985 (RA 2018)	44, 328.67	-
6.	Particulate Matter Concentration (mg/Nm^3)	IS 11255 Part – 1, 1985 (RA 2019)	13	30
D.	**Pollution Control Device Installed**	Bag House		

Test Done By

CLEENVIRON PRIVATE LIMITED ROURKELA

Verified By

Authorized Signatory
Subhanga Praharaj
Managing Director

*****END OF TEST REPORT*****

Registered Office:
D/318, KOELNAGAR, ROURKELA – 769014, Dist: SUNDARGARH, ODISHA

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TC - 6816

TEST REPORT FOR STACK EMISSION MONITORING

FORMAT NO: CPL/FM/58

ULR – TC681623000000733F
REPORT NO: CPL/R/SE/MAR-23/68

REPORT ISSUE DATE: 27.03.2023

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer	:	**M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer	:	RGP Cement Factory, Rajgangpur – 770017, Dist: Sundargarh, Odisha
Sampling Method	:	IS 11255 (Part – 1): 1985, RA 2019

Sample ID No	:	CPL/SE/MAR-23/46
Location of Sampling	:	Line – 1
Date of Sampling	:	20.03.2023
Time of Sampling	:	15:32 Hrs
Duration of Sampling	:	50 min
Sample Received on	:	21.03.2023
Date of Test	:	21.03.2023 – 22.03.2023

A. General Information About the Stack	:	
1. Stack Connected to	:	Cooler
2. Emission Due to	:	Limestone
3. Material of Construction of Stack/Duct	:	Steel
4. Shape of Stack/Duct	:	Circular
5. Whether Stack is provide with Permanent Platform & Ladder	:	Yes
6. Capacity	:	-
7. Running Load	:	-
B. Physical Characteristics of Stack	:	
1. Height of Stack from Ground Level	:	35.85 m
2. Height of Sampling Port from Ground Level	:	NA
3. Diameter/Dimension of Stack/ Duct at sampling point	:	3 m

C. PARAMETERS ANALYSED	METHODS OF ANALYSIS	RESULTS OBTAINED	PERMISSIBLE LIMIT AS PER CTO
1. Ambient Temperature (°C)	IS 11255 Part – 3, 1985 (RA 2018)	32	-
2. Temperature of Gas Emission (°C)	IS 11255 Part – 3, 1985 (RA 2018)	275	-
3. Barometric Pressure (mm Hg)	IS 11255 Part – 3, 1985 (RA 2018)	748	-
4. Velocity of Gas Emitted (m/sec)	IS 11255 Part – 3, 1985 (RA 2018)	8.79	-
5. Quantity of Gas Emitted (Nm^3/hr)	IS 11255 Part – 3, 1985 (RA 2018)	1, 19, 532.44	-
6. Particulate Matter Concentration (mg/Nm^3)	IS 11255 Part – 1, 1985 (RA 2019)	29	30
D. Pollution Control Device Installed	ESP		

Test Done By

CLEENVIRON PRIVATE LIMITED ROURKELA

Verified By

Authorized Signatory
Subhanga Praharaj
Managing Director

*****END OF TEST REPORT*****

Registered Office:
D/318, KOELNAGAR, ROURKELA – 769014, Dist: SUNDARGARH, ODISHA

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TC - 6816

TEST REPORT FOR STACK EMISSION MONITORING

FORMAT NO: CPL/FM/58

ULR – TC681623000000729F
REPORT NO: CPL/R/SE/MAR-23/64

REPORT ISSUE DATE: 27.03.2023

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer	:	**M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer	:	RGP Cement Factory, Rajgangpur – 770017, Dist: Sundargarh, Odisha
Sampling Method	:	IS 11255 (Part – 1): 1985, RA 2019

Sample ID No	:	CPL/SE/MAR-23/47
Location of Sampling	:	Line – 1
Date of Sampling	:	20.03.2023
Time of Sampling	:	12:56 Hrs
Duration of Sampling	:	27 min
Sample Received on	:	21.03.2023
Date of Test	:	21.03.2023 – 22.03.2023

A. General Information About the Stack	:		
1. Stack Connected to	:	CVRM – 1	
2. Emission Due to	:	Slag, Clinker, Gypsum Grinding	
3. Material of Construction of Stack/Duct	:	Steel	
4. Shape of Stack/Duct	:	Circular	
5. Whether Stack is provide with Permanent Platform & Ladder	:	Yes	
6. Capacity	:	110 TPH	
7. Running Load	:	-	
B. Physical Characteristics of Stack	:		
1. Height of Stack from Ground Level	:	56 m	
2. Height of Sampling Port from Ground Level	:	NA	
3. Diameter/Dimension of Stack/ Duct at sampling point	:	2.8 m	
C. PARAMETERS ANALYSED	**METHODS OF ANALYSIS**	**RESULTS OBTAINED**	**PERMISSIBLE LIMIT AS PER CTO**
1. Ambient Temperature (°C)	IS 11255 Part – 3, 1985 (RA 2018)	29	-
2. Temperature of Gas Emission (°C)	IS 11255 Part – 3, 1985 (RA 2018)	93	-
3. Barometric Pressure (mm Hg)	IS 11255 Part – 3, 1985 (RA 2018)	748	-
4. Velocity of Gas Emitted (m/sec)	IS 11255 Part – 3, 1985 (RA 2018)	10.57	-
5. Quantity of Gas Emitted (Nm^3/hr)	IS 11255 Part – 3, 1985 (RA 2018)	1, 87, 468.14	-
6. Particulate Matter Concentration (mg/Nm^3)	IS 11255 Part – 1, 1985 (RA 2019)	05	30
D. Pollution Control Device Installed	Bag House		

Test Done By

CLEENVIRON PRIVATE LIMITED ROURKELA

Verified By

Authorized Signatory
Subhanga Praharaj
Managing Director

*****END OF TEST REPORT*****

Registered Office:
D/318, KOELNAGAR, ROURKELA – 769014, Dist: SUNDARGARH, ODISHA

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Cleenviron Private Limited

Consultant and Engineers in Environmental Pollution Control & Monitoring with NABL Accredited Laboratory.

TC - 6816

TEST REPORT FOR STACK EMISSION MONITORING

FORMAT NO: CPL/FM/58

ULR – TC681623000000730F
REPORT NO: CPL/R/SE/MAR-23/65

REPORT ISSUE DATE: 27.03.2023

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer	:	**M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer	:	RGP Cement Factory, Rajgangpur – 770017, Dist: Sundargarh, Odisha
Sampling Method	:	IS 11255 (Part – 1): 1985, RA 2019

Sample ID No	:	CPL/SE/MAR-23/48
Location of Sampling	:	Line – 1
Date of Sampling	:	20.03.2023
Time of Sampling	:	12:15 Hrs
Duration of Sampling	:	23 min
Sample Received on	:	20.03.2023
Date of Test	:	21.03.2023 – 22.03.2023

A. General Information About the Stack	:	
1. Stack Connected to	:	CVRM – 2
2. Emission Due to	:	Slag, Clinker, Gypsum Grinding
3. Material of Construction of Stack/Duct	:	Steel
4. Shape of Stack/Duct	:	Circular
5. Whether Stack is provide with Permanent Platform & Ladder	:	Yes
6. Capacity	:	120 TPH
7. Running Load	:	-
B. Physical Characteristics of Stack	:	
1. Height of Stack from Ground Level	:	65.5 M
2. Height of Sampling Port from Ground Level	:	NA
3. Diameter/Dimension of Stack/ Duct at sampling point	:	2.8 M

C. PARAMETERS ANALYSED	METHODS OF ANALYSIS	RESULTS OBTAINED	PERMISSIBLE LIMIT AS PER CTO
1. Ambient Temperature (°C)	IS 11255 Part – 3, 1985 (RA 2018)	28	-
2. Temperature of Gas Emission (°C)	IS 11255 Part – 3, 1985 (RA 2018)	100	-
3. Barometric Pressure (mm Hg)	IS 11255 Part – 3, 1985 (RA 2018)	748	-
4. Velocity of Gas Emitted (m/sec)	IS 11255 Part – 3, 1985 (RA 2018)	12.2	-
5. Quantity of Gas Emitted (Nm^3/hr)	IS 11255 Part – 3, 1985 (RA 2018)	2, 12, 220.29	-
6. Particulate Matter Concentration (mg/Nm^3)	IS 11255 Part – 1, 1985 (RA 2019)	11	30
D. Pollution Control Device Installed	Bag House		

Test Done By

CLEENVIRON PRIVATE LIMITED ROURKELA

Verified By

Authorized Signatory
Subhanga Praharaj
Managing Director

*****END OF TEST REPORT*****

Registered Office:
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TC - 6816

TEST REPORT FOR STACK EMISSION MONITORING

FORMAT NO: CPL/FM/58

ULR – TC681623000000731F
REPORT NO: CPL/R/SE/MAR-23/66

REPORT ISSUE DATE: 27.03.2023

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer : RGP Cement Factory, Rajgangpur – 770017, Dist: Sundargarh, Odisha
Sampling Method : IS 11255 (Part – 1): 1985, RA 2019

Sample ID No	:	CPL/SE/MAR-23/49
Location of Sampling	:	Line – 1
Date of Sampling	:	20.03.2023
Time of Sampling	:	11:30 Hrs
Duration of Sampling	:	28 min
Sample Received on	:	21.03.2023
Date of Test	:	21.03.2023 – 22.03.2023

A.	General Information About the Stack	:		
1.	Stack Connected to	:	CVRM – 3	
2.	Emission Due to	:	Slag, Clinker, Gypsum Grinding	
3.	Material of Construction of Stack/Duct	:	Steel	
4.	Shape of Stack/Duct	:	Circular	
5.	Whether Stack is provide with Permanent Platform & Ladder	:	Yes	
6.	Capacity	:	250 TPH	
7.	Running Load	:	-	
B.	Physical Characteristics of Stack	:		
1.	Height of Stack from Ground Level	:	82.2 m	
2.	Height of Sampling Port from Ground Level	:	NA	
3.	Diameter/Dimension of Stack/ Duct at sampling point	:	3.8 m	
C.	PARAMETERS ANALYSED	METHODS OF ANALYSIS	RESULTS OBTAINED	PERMISSIBLE LIMIT AS PER CTO
1.	Ambient Temperature (°C)	IS 11255 Part – 3, 1985 (RA 2018)	28	-
2.	Temperature of Gas Emission (°C)	IS 11255 Part – 3, 1985 (RA 2018)	96	-
3.	Barometric Pressure (mm Hg)	IS 11255 Part – 3, 1985 (RA 2018)	748	-
4.	Velocity of Gas Emitted (m/sec)	IS 11255 Part – 3, 1985 (RA 2018)	10.18	-
5.	Quantity of Gas Emitted (Nm^3/hr)	IS 11255 Part – 3, 1985 (RA 2018)	3, 29, 780.32	-
6.	Particulate Matter Concentration (mg/Nm^3)	IS 11255 Part – 1, 1985 (RA 2019)	18	30
D.	Pollution Control Device Installed	Bag House		

Test Done By

CLEENVIRON PRIVATE LIMITED ROURKELA

Verified By

Authorized Signatory
Subhanga Praharaj
Managing Director

*****END OF TEST REPORT*****

Registered Office:
D/318, KOELNAGAR, ROURKELA – 769014, Dist: SUNDARGARH, ODISHA

Branch Office & Laboratory:
D/124, KOELNAGAR, ROURKELA – 769014, Dist: SUNDARGARH, ODISHA
Tele Fax: 0661 – 2475746, email: cleenviron@gmail.com

Cleenviron Private Limited

Consultant and Engineers in Environmental Pollution Control & Monitoring with NABL Accredited Laboratory.

TC - 6816

TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

FORMAT NO: CPL/FM/57

ULR – TC681623000000721F
REPORT NO: CPL/R/AAQ/MAR-23/38

REPORT ISSUE DATE: 27.03.2023

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer: At/Po: RAJGANGPUR, SUNDARGARH – 770017, ODISHA
Sampling Method : IS: 5182, EN 12341

Sample ID No	:	**CPL/AAQ/MAR-23/294**
Location of Sampling	:	**Roof of General Store (Line – 1)**
Date of Sampling	:	20.03.2023 – 21.03.2023
Sampling Period	:	10:45 – 09:22 Hrs
Time of Sampling	:	22:37 Hrs
mple Received on	:	21.03.2023
Date of Test	:	21.03.2023 – 22.03.2023

Sl No	Parameters	Results Obtained	Unit	Method of Analysis	National Ambient Air Quality Standards, 2009 for Industrial, Residential, Rural & Other Area
1	PM 2.5	25	µg/m³	CPL/SOP/01/PM2.5, Issue No: 02, dtd: 23.10.2017	60 (24 Hours)
2	PM 10	71	µg/m³	EN12341	100 (24 Hours)
3	Sulphur Dioxide (SO_2)	09	µg/m³	IS : 5182 (PART – 2) 2001, RA 2017	80 (24 Hours)
4	Nitrogen Dioxide (NO_2)	27	µg/m³	IS : 5182 (PART – 6) 2006, RA 2017	80 (24 Hours)
5	Ammonia (NH_3)	67	µg/m³	IS : 5182 (PART – 25) 2018	400 (24 Hours)
6	Ozone (O_3)	21	µg/m³	IS – 5182 (PART – 9) 1974, RA 2019	180 (1 Hour)

Test Done By

CLEENVIRON PRIVATE LIMITED ROURKELA

Verified By

Authorized Signatory
Subhanga Praharaj
Managing Director

*****END OF TEST REPORT*****

Registered Office:
D/318, KOELNAGAR, ROURKELA – 769014, Dist: SUNDARGARH, ODISHA

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Cleenviron Private Limited

Consultant and Engineers in Environmental Pollution Control & Monitoring with Laboratory Facility.

TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

FORMAT NO: CPL/FM/57

REPORT NO: CPL/R/AAQ/MAR-23/38N

REPORT ISSUE DATE: 27.03.2023

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer: At/Po: RAJGANGPUR, SUNDARGARH – 770017, ODISHA
Sampling Method : IS: 5182, EN 12341

Sample ID No	:	**CPL/AAQ/MAR-23/294**
Location of Sampling	:	**Roof of General Store (Line – 1)**
Date of Sampling	:	20.03.2023 – 21.03.2023
Sampling Period	:	1045 – 0922 Hrs
Time of Sampling	:	22:37 Hrs
Sample Received on	:	21.03.2023
Date of Test	:	21.03.2023 – 22.03.2023

Sl No	Parameters	Results Obtained	Unit	Method of Analysis	National Ambient Air Quality Standards, 2009 for Industrial, Residential, Rural & Other Area
1	Lead (Pb)	< 0.4	µg/m³	IS : 5182 (PART – 22) 2004, RA 2019	1 (24 Hours)
2	Arsenic (As)	< 0.2	ng/m³	CPL/SOP/01/As, Issue No: 02, dtd.: 23.10.2017	6 (Annual)
3	Nickel (Ni)	< 12	ng/m³	IS : 5182 (PART – 26) 2020	20 (Annual)
4	Carbon Monoxide (CO)	< 0.1	mg/m³	Electro-chemical Sensor Based Digital Monitor	4 (1 Hour)
5	Benzene (C_6H_6)	< 0.5	µg/m³	IS : 5182 (PART – 11) 2006, RA 2017	5 (Annual)
6	Benzo(a)pyrene Particulate Phase only	< 0.1	ng/m³	IS : 5182 (PART – 12) 2004, RA 2014	1 (Annual)

Test Done By

CLEENVIRON PRIVATE LIMITED ROURKELA

Verified By

Authorized Signatory
Subhanga Praharaj
Managing Director

*****END OF TEST REPORT*****

Registered Office:
D/318, KOELNAGAR, ROURKELA – 769014, Dist: SUNDARGARH, ODISHA

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TC - 6816

TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

FORMAT NO: CPL/FM/57

ULR – TC681623000000725F
REPORT NO: CPL/R/AAQ/MAR-23/42

REPORT ISSUE DATE: 27.03.2023

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer: At/Po: RAJGANGPUR, SUNDARGARH – 770017, ODISHA
Sampling Method : IS: 5182

Sample ID No	:	**CPL/AAQ/MAR-23/300**
Location of Sampling	:	**Near Atithi Niwas**
Date of Sampling	:	22.03.2023 – 23.03.2023
Sampling Period	:	14:05 – 08:25 Hrs
Time of Sampling	:	18:20 Hrs
Sample Received on	:	23.03.2023
Date of Test	:	23.03.2023 – 24.03.2023

Sl No	Parameters	Results Obtained	Unit	Method of Analysis	National Ambient Air Quality Standards, 2009 for Industrial, Residential, Rural & Other Area
1	PM 2.5	21	µg/m³	IS : 5182 (PART – 24) 2019	60 (24 Hours)
2	PM 10	69	µg/m³	IS : 5182 (PART – 23) 2006, RA 2017	100 (24 Hours)
3	Sulphur Dioxide (SO_2)	08	µg/m³	IS : 5182 (PART – 2) 2001, RA 2017	80 (24 Hours)
4	Nitrogen Dioxide (NO_2)	27	µg/m³	IS : 5182 (PART – 6) 2006, RA 2017	80 (24 Hours)
5	Ammonia (NH_3)	68	µg/m³	IS : 5182 (PART – 25) 2018	400 (24 Hours)
6	Ozone (O_3)	22	µg/m³	IS – 5182 (PART – 9) 1974, RA 2019	180 (1 Hour)

Test Done By

CLEENVIRON PRIVATE LIMITED ROURKELA

Verified By

Authorized Signatory
Subhanga Praharaj
Managing Director

*****END OF TEST REPORT*****

Registered Office:
D/318, KOELNAGAR, ROURKELA – 769014, Dist: SUNDARGARH, ODISHA

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Cleenviron Private Limited

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TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

FORMAT NO: CPL/FM/57

REPORT NO: CPL/R/AAQ/MAR-23/42N

REPORT ISSUE DATE: 27.03.2023

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer: At/Po: RAJGANGPUR, SUNDARGARH – 770017, ODISHA
Sampling Method : IS: 5182

Sample ID No	:	**CPL/AAQ/MAR-23/300**
Location of Sampling	:	**Near Atithi Niwas**
Date of Sampling	:	22.03.2023 – 23.03.2023
Sampling Period	:	1405 – 0825 Hrs
Time of Sampling	:	18:20 Hrs
Sample Received on	:	23.03.2023
Date of Test	:	23.03.2023 – 24.03.2023

Sl No	Parameters	Results Obtained	Unit	Method of Analysis	National Ambient Air Quality Standards, 2009 for Industrial, Residential, Rural & Other Area
1	Lead (Pb)	< 0.4	µg/m³	IS : 5182 (PART – 22) 2004, RA 2019	1 (24 Hours)
2	Arsenic (As)	< 0.2	ng/m³	CPL/SOP/01/As, Issue No: 02, dtd.: 23.10.2017	6 (Annual)
3	Nickel (Ni)	< 12	ng/m³	IS : 5182 (PART – 26) 2020	20 (Annual)
4	Carbon Monoxide (CO)	< 0.1	mg/m³	Electro-chemical Sensor Based Digital Monitor	4 (1 Hour)
5	Benzene (C_6H_6)	< 0.5	µg/m³	IS : 5182 (PART – 11) 2006, RA 2017	5 (Annual)
6	Benzo(a)pyrene Particulate Phase only	< 0.1	ng/m³	IS : 5182 (PART – 12) 2004, RA 2014	1 (Annual)

Test Done By

CLEENVIRON PRIVATE LIMITED ROURKELA

Verified By

Authorized Signatory
Subhanga Praharaj
Managing Director

*****END OF TEST REPORT*****

Registered Office:
D/318, KOELNAGAR, ROURKELA – 769014, Dist: SUNDARGARH, ODISHA

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TC - 6816

TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

FORMAT NO: CPL/FM/57

ULR – TC681623000000726F
REPORT NO: CPL/R/AAQ/MAR-23/43

REPORT ISSUE DATE: 27.03.2023

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer: At/Po: RAJGANGPUR, SUNDARGARH – 770017, ODISHA
Sampling Method : IS: 5182, EN 12341

Sample ID No	:	**CPL/AAQ/MAR-23/299**
Location of Sampling	:	**Roof Of Canteen Building**
Date of Sampling	:	22.03.2023 – 23.03.2023
Sampling Period	:	14:45 – 08:52 Hrs
Time of Sampling	:	18.07 Hrs
Sample Received on	:	23.03.2023
Date of Test	:	23.03.2023 – 24.03.2023

Sl No	Parameters	Results Obtained	Unit	Method of Analysis	National Ambient Air Quality Standards, 2009 for Industrial, Residential, Rural & Other Area
1	PM 2.5	20	µg/m³	CPL/SOP/01/PM2.5, Issue No: 02, dtd: 23.10.2017	60 (24 Hours)
2	PM 10	58	µg/m³	EN 12341	100 (24 Hours)
3	Sulphur Dioxide (SO_2)	07	µg/m³	IS : 5182 (PART – 2) 2001, RA 2017	80 (24 Hours)
4	Nitrogen Dioxide (NO_2)	23	µg/m³	IS : 5182 (PART – 6) 2006, RA 2017	80 (24 Hours)
5	Ammonia (NH_3)	63	µg/m³	IS : 5182 (PART – 25) 2018	400 (24 Hours)
6	Ozone (O_3)	24	µg/m³	IS – 5182 (PART – 9) 1974, RA 2019	180 (1 Hour)

Test Done By

CLEENVIRON PRIVATE LIMITED ROURKELA

Verified By

Authorized Signatory
Subhanga Praharaj
Managing Director

*****END OF TEST REPORT*****

Registered Office:
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TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

FORMAT NO: CPL/FM/57

REPORT NO: CPL/R/AAQ/MAR-23/43N

REPORT ISSUE DATE: 27.03.2023

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer: At/Po: RAJGANGPUR, SUNDARGARH – 770017, ODISHA
Sampling Method : IS: 5182, EN 12341

Sample ID No	:	**CPL/AAQ/MAR-23/299**
Location of Sampling	:	**Roof Of Canteen Building**
Date of Sampling	:	22.03.2023 – 23.03.2023
Sampling Period	:	1445 – 0852 Hrs
Time of Sampling	:	18.07 Hrs
Sample Received on	:	23.03.2023
Date of Test	:	23.03.2023 – 24.03.2023

Sl No	Parameters	Results Obtained	Unit	Method of Analysis	National Ambient Air Quality Standards, 2009 for Industrial, Residential, Rural & Other Area
1	Lead (Pb)	< 0.4	µg/m³	IS : 5182 (PART – 22) 2004, RA 2019	1 (24 Hours)
2	Arsenic (As)	< 0.2	ng/m³	CPL/SOP/01/As, Issue No: 02, dtd.: 23.10.2017	6 (Annual)
3	Nickel (Ni)	< 12	ng/m³	IS : 5182 (PART – 26) 2020	20 (Annual)
4	Carbon Monoxide (CO)	< 0.1	mg/m³	Electro-chemical Sensor Based Digital Monitor	4 (1 Hour)
5	Benzene (C_6H_6)	< 0.5	µg/m³	IS : 5182 (PART – 11) 2006, RA 2017	5 (Annual)
6	Benzo(a)pyrene Particulate Phase only	< 0.1	ng/m³	IS : 5182 (PART – 12) 2004, RA 2014	1 (Annual)

Test Done By

CLEENVIRON PRIVATE LIMITED ROURKELA

P. Saseni
Verified By

Authorized Signatory
Subhanga Praharaj
Managing Director

*****END OF TEST REPORT*****

Registered Office:
D/318, KOELNAGAR, ROURKELA – 769014, Dist: SUNDARGARH, ODISHA

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TC - 6816

TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

FORMAT NO: CPL/FM/57

ULR – TC681623000000722F
REPORT NO: CPL/R/AAQ/MAR-23/39

REPORT ISSUE DATE: 27.03.2023

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer: At/Po: RAJGANGPUR, SUNDARGARH – 770017, ODISHA
Sampling Method : IS: 5182

Sample ID No	:	**CPL/AAQ/MAR-23/295**
Location of Sampling	:	**Near Loco Gate**
Date of Sampling	:	20.03.2023 – 21.03.2023
Sampling Period	:	10:30 – 09:10 Hrs
Time of Sampling	:	22:40 Hrs
Sample Received on	:	21.03.2023
Date of Test	:	21.03.2023 – 22.03.2023

Sl No	Parameters	Results Obtained	Unit	Method of Analysis	National Ambient Air Quality Standards, 2009 for Industrial, Residential, Rural & Other Area
1	PM 2.5	28	µg/m³	IS : 5182 (PART – 24) 2019	60 (24 Hours)
2	PM 10	79	µg/m³	IS : 5182 (PART – 23) 2006, RA 2017	100 (24 Hours)
3	Sulphur Dioxide (SO_2)	09	µg/m³	IS : 5182 (PART – 2) 2001, RA 2017	80 (24 Hours)
4	Nitrogen Dioxide (NO_2)	27	µg/m³	IS : 5182 (PART – 6) 2006, RA 2017	80 (24 Hours)
5	Ammonia (NH_3)	70	µg/m³	IS : 5182 (PART – 25) 2018	400 (24 Hours)
6	Ozone (O_3)	24	µg/m³	IS – 5182 (PART – 9) 1974, RA 2019	180 (1 Hour)

Test Done By

CLEENVIRON PRIVATE LIMITED ROURKELA

P. Saseni
Verified By

Authorized Signatory
Subhanga Praharaj
Managing Director

*****END OF TEST REPORT*****

Registered Office:
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TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

FORMAT NO: CPL/FM/57

REPORT NO: CPL/R/AAQ/MAR-23/39N

REPORT ISSUE DATE: 27.03.2023

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer: At/Po: RAJGANGPUR, SUNDARGARH – 770017, ODISHA
Sampling Method : IS: 5182

Sample ID No	:	**CPL/AAQ/MAR-23/295**
Location of Sampling	:	**Near Loco Gate**
Date of Sampling	:	20.03.2023 – 21.03.2023
Sampling Period	:	1030 – 0910 Hrs
Time of Sampling	:	22:40 Hrs
Sample Received on	:	21.03.2023
Date of Test	:	21.03.2023 – 22.03.2023

Sl No	Parameters	Results Obtained	Unit	Method of Analysis	National Ambient Air Quality Standards, 2009 for Industrial, Residential, Rural & Other Area
1	Lead (Pb)	< 0.4	µg/m³	IS : 5182 (PART – 22) 2004, RA 2019	1 (24 Hours)
2	Arsenic (As)	< 0.2	ng/m³	CPL/SOP/01/As, Issue No: 02, dtd.: 23.10.2017	6 (Annual)
3	Nickel (Ni)	< 12	ng/m³	IS : 5182 (PART – 26) 2020	20 (Annual)
4	Carbon Monoxide (CO)	< 0.1	mg/m³	Electro-chemical Sensor Based Digital Monitor	4 (1 Hour)
5	Benzene (C_6H_6)	< 0.5	µg/m³	IS : 5182 (PART – 11) 2006, RA 2017	5 (Annual)
6	Benzo(a)pyrene Particulate Phase only	< 0.1	ng/m³	IS : 5182 (PART – 12) 2004, RA 2014	1 (Annual)

Test Done By

CLEENVIRON PRIVATE LIMITED ROURKELA

Verified By

Authorized Signatory
Subhanga Praharaj
Managing Director

*****END OF TEST REPORT*****

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Cleenviron Private Limited

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TC - 6816

TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

FORMAT NO: CPL/FM/57

ULR – TC681623000000727F
REPORT NO: CPL/R/AAQ/MAR-23/44

REPORT ISSUE DATE: 27.03.2023

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer: At/Po: RAJGANGPUR, SUNDARGARH – 770017, ODISHA
Sampling Method : IS: 5182, EN 12341

Sample ID No	:	**CPL/AAQ/MAR-23/321**
Location of Sampling	:	**Roof Of Workshop (Line – 2)**
Date of Sampling	:	23.03.2023 – 24.03.2023
Sampling Period	:	09:10 – 09:24 Hrs
Time of Sampling	:	24.14 Hrs
Sample Received on	:	24.03.2023
Date of Test	:	24.03.2023 – 25.03.2023

Sl No	Parameters	Results Obtained	Unit	Method of Analysis	National Ambient Air Quality Standards, 2009 for Industrial, Residential, Rural & Other Area
1	PM 2.5	27	µg/m³	CPL/SOP/01/PM2.5, Issue No: 02, dtd: 23.10.2017	60 (24 Hours)
2	PM 10	76	µg/m³	EN12341	100 (24 Hours)
3	Sulphur Dioxide (SO_2)	05	µg/m³	IS : 5182 (PART – 2) 2001, RA 2017	80 (24 Hours)
4	Nitrogen Dioxide (NO_2)	28	µg/m³	IS : 5182 (PART – 6) 2006, RA 2017	80 (24 Hours)
5	Ammonia (NH_3)	75	µg/m³	IS : 5182 (PART – 25) 2018	400 (24 Hours)
6	Ozone (O_3)	24	µg/m³	IS – 5182 (PART – 9) 1974, RA 2019	180 (1 Hour)

Test Done By

CLEENVIRON PRIVATE LIMITED ROURKELA

Verified By

Authorized Signatory
Subhanga Praharaj
Managing Director

*****END OF TEST REPORT*****

Registered Office:
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Consultant and Engineers in Environmental Pollution Control & Monitoring with Laboratory Facility.

TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

FORMAT NO: CPL/FM/57

REPORT NO: CPL/R/AAQ/MAR-23/44 N

REPORT ISSUE DATE: 27.03.2023

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer: At/Po: RAJGANGPUR, SUNDARGARH – 770017, ODISHA
Sampling Method : IS: 5182, EN 12341

Sample ID No	:	**CPL/AAQ/MAR-23/321**
Location of Sampling	:	**Roof Of Workshop (Line – 2)**
Date of Sampling	:	23.03.2023 – 24.03.2023
Sampling Period	:	09:10 – 09:24 Hrs
Time of Sampling	:	24.14 Hrs
Sample Received on	:	24.03.2023
Date of Test	:	24.03.2023 – 25.03.2023

Sl No	Parameters	Results Obtained	Unit	Method of Analysis	National Ambient Air Quality Standards, 2009 for Industrial, Residential, Rural & Other Area
1	Lead (Pb)	< 0.4	µg/m³	IS : 5182 (PART – 22) 2004, RA 2019	1 (24 Hours)
2	Arsenic (As)	< 0.2	ng/m³	CPL/SOP/01/As, Issue No: 02, dtd.: 23.10.2017	6 (Annual)
3	Nickel (Ni)	< 12	ng/m³	IS : 5182 (PART – 26) 2020	20 (Annual)
4	Carbon Monoxide (CO)	< 0.1	mg/m³	Electro-chemical Sensor Based Digital Monitor	4 (1 Hour)
5	Benzene (C_6H_6)	< 0.5	µg/m³	IS : 5182 (PART – 11) 2006, RA 2017	5 (Annual)
6	Benzo(a)pyrene Particulate Phase only	< 0.1	ng/m³	IS : 5182 (PART – 12) 2004, RA 2014	1 (Annual)

Test Done By

CLEENVIRON PRIVATE LIMITED ROURKELA

Verified By

Authorized Signatory
Subhanga Praharaj
Managing Director

*****END OF TEST REPORT*****

Registered Office:
D/318, KOELNAGAR, ROURKELA – 769014, Dist: SUNDARGARH, ODISHA

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Cleenviron Private Limited

Consultant and Engineers in Environmental Pollution Control & Monitoring with Laboratory Facility.

TEST REPORT FOR STACK EMISSION MONITORING

FORMAT NO: CPL/FM/58

REPORT NO: CPL/R/SE/DEC-22/76N **REPORT ISSUE DATE: 20.12.2022**

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer : RGP Cement Factory, Rajgangpur – 770017, Dist: Sundargarh, Odisha
Sampling Method : IS 11255 (Part – 1): 1985, RA 2019

Sample ID No	:	**CPL/SE/DEC-22/43**
Location of Sampling	:	Line – 1
Date of Sampling	:	13.12.2022
Time of Sampling	:	15:15 Hrs
Duration of Sampling	:	31 min
Sample Received on	:	13.12.2022
Date of Test	:	13.12.2022 – 14.12.2022

E. General Information About the Stack	:	
8. Stack Connected to	:	CVRM – 1 Bag House Outlet
9. Emission Due to	:	Slag, Clinker, Gypsum Grinding
10. Material of Construction of Stack/Duct	:	Steel
11. Shape of Stack/Duct	:	Circular
12. Whether Stack is provide with Permanent Platform & Ladder	:	Yes
13. Capacity	:	110 TPH
14. Running Load	:	100 TPH
F. Physical Characteristics of Stack	:	
4. Height of Stack from Ground Level	:	56 m
5. Height of Sampling Port from Ground Level	:	NA
6. Diameter/Dimension of Stack/ Duct at sampling point	:	2.8 m

G. PARAMETERS ANALYSED	METHODS OF ANALYSIS	RESULTS OBTAINED	PERMISSIBLE LIMIT AS PER CTO
Ambient Temperature (°C)	IS 11255 Part – 3, 1985 (RA 2018)	37	-
7. Temperature of Gas Emission (°C)	IS 11255 Part – 3, 1985 (RA 2018)	95	-
8. Barometric Pressure (mm Hg)	IS 11255 Part – 3, 1985 (RA 2018)	748	-
9. Velocity of Gas Emitted (m/sec)	IS 11255 Part – 3, 1985 (RA 2018)	9.39	-
10. Quantity of Gas Emitted (Nm^3/hr)	IS 11255 Part – 3, 1985 (RA 2018)	1, 65, 579.29	-
11. Particulate Matter Concentration (mg/Nm^3)	IS 11255 Part – 1, 1985 (RA 2019)	06	30
H. Pollution Control Device Installed	Bag House		

Test Done By

Verified By

CLEENVIRON PRIVATE LIMITED ROURKELA

Authorized Signatory
Subhanga Praharaj
Managing Director

*****END OF TEST REPORT*****

Registered Office:
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Consultant and Engineers in Environmental Pollution Control & Monitoring with Laboratory Facility.

TEST REPORT FOR STACK EMISSION MONITORING

FORMAT NO: CPL/FM/58

REPORT NO: CPL/R/SE/DEC-22/94N

REPORT ISSUE DATE: 20.12.2022

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer	:	**M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer	:	RGP Cement Factory, Rajgangpur – 770017, Dist: Sundargarh, Odisha
Sampling Method	:	IS 11255 (Part – 1): 1985, RA 2019

Sample ID No	:	**CPL/SE/DEC-22/63**
Location of Sampling	:	Line – 1
Date of Sampling	:	17.12.2022
Time of Sampling	:	12:15 Hrs
Duration of Sampling	:	31 min
Sample Received on	:	17.12.2022
Date of Test	:	17.12.2022 – 19.12.2022

A. General Information About the Stack	:	
1. Stack Connected to	:	CVRM – 2 Bag House Outlet
2. Emission Due to	:	Slag, Clinker, Gypsum Grinding
3. Material of Construction of Stack/Duct	:	Steel
4. Shape of Stack/Duct	:	Circular
5. Whether Stack is provide with Permanent Platform & Ladder	:	Yes
6. Capacity	:	120 TPH
7. Running Load	:	120 TPH
B. Physical Characteristics of Stack	:	
1. Height of Stack from Ground Level	:	65.5 m
2. Height of Sampling Port from Ground Level	:	NA
3. Diameter/Dimension of Stack/ Duct at sampling point	:	2.8 m

C. PARAMETERS ANALYSED	METHODS OF ANALYSIS	RESULTS OBTAINED	PERMISSIBLE LIMIT AS PER CTO
1. Ambient Temperature (°C)	IS 11255 Part – 3, 1985 (RA 2018)	34	-
2. Temperature of Gas Emission (°C)	IS 11255 Part – 3, 1985 (RA 2018)	98	-
3. Barometric Pressure (mm Hg)	IS 11255 Part – 3, 1985 (RA 2018)	747	-
4. Velocity of Gas Emitted (m/sec)	IS 11255 Part – 3, 1985 (RA 2018)	9.24	-
5. Quantity of Gas Emitted (Nm^3/hr)	IS 11255 Part – 3, 1985 (RA 2018)	1, 61, 525.85	-
6. Particulate Matter Concentration (mg/Nm^3)	IS 11255 Part – 1, 1985 (RA 2019)	12	30
D. Pollution Control Device Installed	Bag Filter		

Test Done By

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Subhanga Praharaj
Managing Director

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TEST REPORT FOR STACK EMISSION MONITORING

FORMAT NO: CPL/FM/58

REPORT NO: CPL/R/SE/DEC-22/78N **REPORT ISSUE DATE: 20.12.2022**

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer : RGP Cement Factory, Rajgangpur – 770017, Dist: Sundargarh, Odisha
Sampling Method : IS 11255 (Part – 1): 1985, RA 2019

Sample ID No	:	**CPL/SE/DEC-22/42**
Location of Sampling	:	Line – 1
Date of Sampling	:	13.12.2022
Time of Sampling	:	12:20 Hrs
Duration of Sampling	:	30 min
mple Received on	:	13.12.2022
Date of Test	:	13.12.2022 – 14.12.2022

A.	**General Information About the Stack**	:		
1.	Stack Connected to	:	CVRM – 3 Bag House Outlet	
2.	Emission Due to	:	Slag, Clinker, Gypsum Grinding	
3.	Material of Construction of Stack/Duct	:	Steel	
4.	Shape of Stack/Duct	:	Circular	
5.	Whether Stack is provide with Permanent Platform & Ladder	:	Yes	
6.	Capacity	:	250 TPH	
7.	Running Load	:	250 TPH	
B.	**Physical Characteristics of Stack**	:		
1.	Height of Stack from Ground Level	:	82.2 m	
2.	Height of Sampling Port from Ground Level	:	NA	
3.	Diameter/Dimension of Stack/ Duct at sampling point	:	3.8 m	
C.	**PARAMETERS ANALYSED**	**METHODS OF ANALYSIS**	**RESULTS OBTAINED**	**PERMISSIBLE LIMIT AS PER CTO**
1.	**Ambient Temperature (°C)**	IS 11255 Part – 3, 1985 (RA 2018)	**32**	-
2.	**Temperature of Gas Emission (°C)**	IS 11255 Part – 3, 1985 (RA 2018)	**98**	-
3.	**Barometric Pressure (mm Hg)**	IS 11255 Part – 3, 1985 (RA 2018)	**748**	-
4.	**Velocity of Gas Emitted (m/sec)**	IS 11255 Part – 3, 1985 (RA 2018)	**9.69**	-
5.	**Quantity of Gas Emitted (Nm^3/hr)**	IS 11255 Part – 3, 1985 (RA 2018)	**3, 12, 206.23**	-
6.	**Particulate Matter Concentration (mg/Nm^3)**	IS 11255 Part – 1, 1985 (RA 2019)	**12**	**30**
D.	**Pollution Control Device Installed**	**Bag House**		

Test Done By

Verified By

CLEENVIRON PRIVATE LIMITED ROURKELA

Authorized Signatory
Subhanga Praharaj
Managing Director

*****END OF TEST REPORT*****

This report refers to the values obtained at the time of testing and results related to the item tested. This report may not be reproduced in part or full without written permission of the Company.

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Cleenviron Private Limited

Consultant and Engineers in Environmental Pollution Control & Monitoring with Laboratory Facility.

TEST REPORT FOR STACK EMISSION MONITORING

FORMAT NO: CPL/FM/58

REPORT NO: CPL/R/SE/DEC-22/83N **REPORT ISSUE DATE: 20.12.2022**

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer : RGP Cement Factory, Rajgangpur – 770017, Dist: Sundargarh, Odisha
Sampling Method : IS 11255 (Part – 1): 1985, RA 2019

Sample ID No	:	**CPL/SE/DEC-22/52**
Location of Sampling	:	LINE – 2
Date of Sampling	:	15.12.2022
Time of Sampling	:	12:40 Hrs
Duration of Sampling	:	35 min
mple Received on	:	15.12.2022
Date of Test	:	15.12.2022 – 16.12.2022

E. General Information About the Stack	:	
8. Stack Connected to	:	KILN & VRM RABH Bag House Outlet
9. Emission Due to	:	Limestone Grinding
10. Material of Construction of Stack/Duct	:	Steel
11. Shape of Stack/Duct	:	Circular
12. Whether Stack is provide with Permanent Platform & Ladder	:	Yes
13. Capacity	:	450 TPH
14. Running Load	:	28 TPH
F. Physical Characteristics of Stack	:	
4. Height of Stack from Ground Level	:	135 m
5. Height of Sampling Port from Ground Level	:	NA
6. Diameter/Dimension of Stack/ Duct at sampling point	:	4.9 m

G. PARAMETERS ANALYSED	METHODS OF ANALYSIS	RESULTS OBTAINED	PERMISSIBLE LIMIT AS PER CTO
6. Ambient Temperature (°C)	IS 11255 Part – 3, 1985 (RA 2018)	33	-
Temperature of Gas Emission (°C)	IS 11255 Part – 3, 1985 (RA 2018)	118	-
8. Barometric Pressure (mm Hg)	IS 11255 Part – 3, 1985 (RA 2018)	748	-
9. Velocity of Gas Emitted (m/sec)	IS 11255 Part – 3, 1985 (RA 2018)	8.61	-
10. Quantity of Gas Emitted (Nm^3/hr)	IS 11255 Part – 3, 1985 (RA 2018)	4, 37, 438.92	-
11. Particulate Matter Concentration (mg/Nm^3)	IS 11255 Part – 1, 1985 (RA 2019)	07	30
12. Sulphur Dioxide(SO_2) Concentration (mg/Nm^3)	IS 11255 Part – 2, 1985 (RA 2014)	17.20	100
13. Nitrogen Dioxide (NO_2) Concentration (mg/Nm^3)	IS 11255 Part – 7, 2005 (RA 2017)	221.5	800
H. Pollution Control Device Installed	Bag House		

Test Done By

Verified By

CLEENVIRON PRIVATE LIMITED ROURKELA

Authorized Signatory
Subhanga Praharaj
Managing Director

*****END OF TEST REPORT*****

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TEST REPORT FOR STACK EMISSION MONITORING

FORMAT NO: CPL/FM/58

REPORT NO: CPL/R/SE/DEC-22/80N

REPORT ISSUE DATE: 20.12.2022

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer	:	**M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer	:	RGP Cement Factory, Rajgangpur – 770017, Dist: Sundargarh, Odisha
Sampling Method	:	IS 11255 (Part – 1): 1985, RA 2019

Sample ID No	:	**CPL/SE/DEC-22/45**
Location of Sampling	:	Line – 2
Date of Sampling	:	14.12.2022
Time of Sampling	:	12:25 Hrs
Duration of Sampling	:	40 min
Sample Received on	:	14.12.2022
Date of Test	:	14.12.2022 – 15.12.2022

A. General Information About the Stack	:	
1. Stack Connected to	:	Cooler ESP Outlet
2. Emission Due to	:	Limestone
3. Material of Construction of Stack/Duct	:	Steel
4. Shape of Stack/Duct	:	Circular
5. Whether Stack is provide with Permanent Platform & Ladder	:	Yes
6. Capacity	:	NA
7. Running Load	:	95%
B. Physical Characteristics of Stack	:	
1. Height of Stack from Ground Level	:	44 m
2. Height of Sampling Port from Ground Level	:	NA
3. Diameter/Dimension of Stack/ Duct at sampling point	:	4.0 m

C. PARAMETERS ANALYSED	METHODS OF ANALYSIS	RESULTS OBTAINED	PERMISSIBLE LIMIT AS PER CTO
1. Ambient Temperature (°C)	IS 11255 Part – 3, 1985 (RA 2018)	36	-
2. Temperature of Gas Emission (°C)	IS 11255 Part – 3, 1985 (RA 2018)	101	-
3. Barometric Pressure (mm Hg)	IS 11255 Part – 3, 1985 (RA 2018)	748	-
4. Velocity of Gas Emitted (m/sec)	IS 11255 Part – 3, 1985 (RA 2018)	7.23	-
5. Quantity of Gas Emitted (Nm^3/hr)	IS 11255 Part – 3, 1985 (RA 2018)	2, 56, 237.34	-
6. Particulate Matter Concentration (mg/Nm^3)	IS 11255 Part – 1, 1985 (RA 2019)	06	30
D. Pollution Control Device Installed	ESP		

Test Done By

P. Saseni

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TEST REPORT FOR STACK EMISSION MONITORING

FORMAT NO: CPL/FM/58

REPORT NO: CPL/R/SE/DEC-22/82N

REPORT ISSUE DATE: 20.12.2022

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer : RGP Cement Factory, Rajgangpur – 770017, Dist: Sundargarh, Odisha
Sampling Method : IS 11255 (Part – 1): 1985, RA 2019

Sample ID No	:	**CPL/SE/DEC-22/50**
Location of Sampling	:	Line – 2
Date of Sampling	:	15.12.2022
Time of Sampling	:	09:52 Hrs
Duration of Sampling	:	33 min
mple Received on	:	15.12.2022
Date of Test	:	15.12.2022 – 16.12.2022

A. General Information About the Stack	:		
1. Stack Connected to	:	Coal Mill Bag House Outlet	
2. Emission Due to	:	Coal	
3. Material of Construction of Stack/Duct	:	Steel	
4. Shape of Stack/Duct	:	Circular	
5. Whether Stack is provide with Permanent Platform & Ladder	:	Yes	
6. Capacity	:	60 TPH	
7. Running Load	:	58%	
B. Physical Characteristics of Stack	:		
1. Height of Stack from Ground Level	:	68 m	
2. Height of Sampling Port from Ground Level	:	NA	
3. Diameter/Dimension of Stack/ Duct at sampling point	:	2.27 m	
C. PARAMETERS ANALYSED	**METHODS OF ANALYSIS**	**RESULTS OBTAINED**	**PERMISSIBLE LIMIT AS PER CTO**
1. Ambient Temperature (°C)	IS 11255 Part – 3, 1985 (RA 2018)	**24**	-
Temperature of Gas Emission (°C)	IS 11255 Part – 3, 1985 (RA 2018)	**71**	-
3. Barometric Pressure (mm Hg)	IS 11255 Part – 3, 1985 (RA 2018)	**748**	-
4. Velocity of Gas Emitted (m/sec)	IS 11255 Part – 3, 1985 (RA 2018)	**8.10**	-
5. Quantity of Gas Emitted (Nm^3/hr)	IS 11255 Part – 3, 1985 (RA 2018)	**1, 00, 466.67**	-
6. Particulate Matter Concentration (mg/Nm^3)	IS 11255 Part – 1, 1985 (RA 2019)	**08**	**30**
D. Pollution Control Device Installed	**Bag House**		

Test Done By

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Managing Director

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TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

FORMAT NO: CPL/FM/57

REPORT NO: CPL/R/AAQ/DEC-22/56N

REPORT ISSUE DATE: 26.12.2022

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer: At/Po: RAJGANGPUR, SUNDARGARH – 770017, ODISHA
Sampling Method : IS: 5182, EN 12341

Sample ID No	:	**CPL/AAQ/DEC-22/137**
Location of Sampling	:	**Roof of General Store (Line – 1)**
Date of Sampling	:	13.12.2022 – 14.12.2022
Sampling Period	:	1040 – 1040 Hrs
Time of Sampling	:	24:00 Hrs
Sample Received on	:	14.12.2022
Date of Test	:	14.12.2022 – 15.12.2022

Sl No	Parameters	Results Obtained	Unit	Method of Analysis	National Ambient Air Quality Standards, 2009 for Industrial, Residential, Rural & Other Area
1	PM 2.5	27	µg/m³	CPL/SOP/01/PM2.5, Issue No: 02, dtd: 23.10.2017	**60 (24 Hours)**
2	PM 10	77	µg/m³	EN 12341, 1998 Low Volume Sampler	**100 (24 Hours)**
3	Sulphur Dioxide (SO_2)	06	µg/m³	IS : 5182 (PART – 2) 2001, RA 2017	**80 (24 Hours)**
4	Nitrogen Dioxide (NO_2)	18	µg/m³	IS : 5182 (PART – 6) 2006, RA 2017	**80 (24 Hours)**
5	Ammonia (NH_3)	39	µg/m³	CPL/SOP/01/NH_3, Issue No: 02, dtd: 23.10.2017	**400 (24 Hours)**
6	Ozone (O_3)	< 20	µg/m³	IS – 5182 (PART – 9) 1974, RA 2019	**180 (1 Hour)**

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TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

FORMAT NO: CPL/FM/57

REPORT NO: CPL/R/AAQ/DEC-22/56N

REPORT ISSUE DATE: 26.12.2022

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer: At/Po: RAJGANGPUR, SUNDARGARH – 770017, ODISHA
Sampling Method : IS: 5182, EN 12341

Sample ID No	:	**CPL/AAQ/DEC-22/137**
Location of Sampling	:	**Roof of General Store (Line – 1)**
Date of Sampling	:	13.12.2022 – 14.12.2022
Sampling Period	:	1040 – 1040 Hrs
Time of Sampling	:	24:00 Hrs
Sample Received on	:	14.12.2022
Date of Test	:	14.12.2022 – 15.12.2022

Sl No	Parameters	Results Obtained	Unit	Method of Analysis	National Ambient Air Quality Standards, 2009 for Industrial, Residential, Rural & Other Area
1	Lead (Pb)	< 0.4	µg/m³	IS : 5182 (PART – 22) 2004, RA 2019	1 (24 Hours)
2	Arsenic (As)	< 0.2	ng/m³	CPL/SOP/01/As, Issue No: 02, dtd.: 23.10.2017	6 (Annual)
3	Nickel (Ni)	< 12	ng/m³	IS : 5182 (PART – 26) 2020	20 (Annual)
4	Carbon Monoxide (CO)	< 0.1	mg/m³	Electro-chemical Sensor Based Digital Monitor	4 (1 Hour)
5	Benzene (C_6H_6)	< 0.5	µg/m³	IS : 5182 (PART – 11) 2006, RA 2017	5 (Annual)
6	Benzo(a)pyrene Particulate Phase only	< 0.1	ng/m³	IS : 5182 (PART – 12) 2004, RA 2014	1 (Annual)

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Managing Director

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TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

FORMAT NO: CPL/FM/57

REPORT NO: CPL/R/AAQ/DEC-22/58N

REPORT ISSUE DATE: 26.12.2022

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer: At/Po: RAJGANGPUR, SUNDARGARH – 770017, ODISHA
Sampling Method : IS: 5182, EN 12341

Sample ID No	:	**CPL/AAQ/DEC-22/169**
Location of Sampling	:	**Near Atithi Niwas**
Date of Sampling	:	16.12.2022 – 17.12.2022
Sampling Period	:	1615 – 0840 Hrs
Time of Sampling	:	16:25 Hrs
Sample Received on	:	17.12.2022
Date of Test	:	17.12.2022 – 19.12.2022

Sl No	Parameters	Results Obtained	Unit	Method of Analysis	National Ambient Air Quality Standards, 2009 for Industrial, Residential, Rural & Other Area
1	PM 2.5	28	µg/m³	CPL/SOP/01/PM2.5, Issue No: 02, dtd: 23.10.2017	60 (24 Hours)
2	PM 10	81	µg/m³	EN 12341, 1998 Low Volume Sampler	100 (24 Hours)
3	Sulphur Dioxide (SO_2)	10	µg/m³	IS : 5182 (PART – 2) 2001, RA 2017	80 (24 Hours)
4	Nitrogen Dioxide (NO_2)	23	µg/m³	IS : 5182 (PART – 6) 2006, RA 2017	80 (24 Hours)
5	Ammonia (NH_3)	47	µg/m³	CPL/SOP/01/NH_3, Issue No: 02, dtd: 23.10.2017	400 (24 Hours)
6	Ozone (O_3)	25	µg/m³	IS – 5182 (PART – 9) 1974, RA 2019	180 (1 Hour)

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Authorized Signatory
Subhanga Praharaj
Managing Director

CLEENVIRON PRIVATE LIMITED ROURKELA

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TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

FORMAT NO: CPL/FM/57

REPORT NO: CPL/R/AAQ/DEC-22/58N

REPORT ISSUE DATE: 26.12.2022

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer: At/Po: RAJGANGPUR, SUNDARGARH – 770017, ODISHA
Sampling Method : IS: 5182, EN 12341

Sample ID No	:	**CPL/AAQ/DEC-22/169**
Location of Sampling	:	**Near Atithi Niwas**
Date of Sampling	:	16.12.2022 – 17.12.2022
Sampling Period	:	1615 – 0840 Hrs
Time of Sampling	:	16:25 Hrs
Sample Received on	:	17.12.2022
Date of Test	:	17.12.2022 – 19.12.2022

Sl No	Parameters	Results Obtained	Unit	Method of Analysis	National Ambient Air Quality Standards, 2009 for Industrial, Residential, Rural & Other Area
1	Lead (Pb)	< 0.4	µg/m³	IS : 5182 (PART – 22) 2004, RA 2019	**1 (24 Hours)**
2	Arsenic (As)	< 0.2	ng/m³	CPL/SOP/01/As, Issue No: 02, dtd.: 23.10.2017	**6 (Annual)**
3	Nickel (Ni)	< 12	ng/m³	IS : 5182 (PART – 26) 2020	**20 (Annual)**
4	Carbon Monoxide (CO)	< 0.1	mg/m³	Electro-chemical Sensor Based Digital Monitor	**4 (1 Hour)**
5	Benzene (C_6H_6)	< 0.5	µg/m³	IS : 5182 (PART – 11) 2006, RA 2017	**5 (Annual)**
6	Benzo(a)pyrene Particulate Phase only	< 0.1	ng/m³	IS : 5182 (PART – 12) 2004, RA 2014	**1 (Annual)**

Test Done By

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Authorized Signatory
Subhanga Praharaj
Managing Director

CLEENVIRON PRIVATE LIMITED ROURKELA

*****END OF TEST REPORT*****

Registered Office:
D/318, KOELNAGAR, ROURKELA – 769014, Dist: SUNDARGARH, ODISHA
Branch Office & Laboratory:
D/124, KOELNAGAR, ROURKELA – 769014, Dist: SUNDARGARH, ODISHA
Tele Fax: 0661 – 2475746, email: cleenviron@gmail.com

Cleenviron Private Limited

Consultant and Engineers in Environmental Pollution Control & Monitoring with Laboratory Facility.

TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

FORMAT NO: CPL/FM/57

REPORT NO: CPL/R/AAQ/DEC-22/57N

REPORT ISSUE DATE: 26.12.2022

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer: At/Po: RAJGANGPUR, SUNDARGARH – 770017, ODISHA
Sampling Method : IS: 5182

Sample ID No	:	**CPL/AAQ/DEC-22/168**
Location of Sampling	:	**Roof of Canteen Building**
Date of Sampling	:	16.12.2022 –17.12.2022
Sampling Period	:	1635 – 0855 Hrs
Time of Sampling	:	16.20 Hrs
Sample Received on	:	17.12.2022
Date of Test	:	17.12.2022 – 19.12.2022

Sl No	Parameters	Results Obtained	Unit	Method of Analysis	National Ambient Air Quality Standards, 2009 for Industrial, Residential, Rural & Other Area
1	PM 2.5	25	µg/m³	CPL/SOP/01/PM2.5, Issue No: 02, dtd: 23.10.2017	60 (24 Hours)
2	PM 10	74	µg/m³	IS : 5182 (PART – 23) 2006, RA 2017	100 (24 Hours)
3	Sulphur Dioxide (SO_2)	09	µg/m³	IS : 5182 (PART – 2) 2001, RA 2017	80 (24 Hours)
4	Nitrogen Dioxide (NO_2)	25	µg/m³	IS : 5182 (PART – 6) 2006, RA 2017	80 (24 Hours)
5	Ammonia (NH_3)	44	µg/m³	CPL/SOP/01/NH_3, Issue No: 02, dtd: 23.10.2017	400 (24 Hours)
6	Ozone (O_3)	22	µg/m³	IS – 5182 (PART – 9) 1974, RA 2019	180 (1 Hour)

Test Done By

Verified By

Authorized Signatory
Subhanga Praharaj
Managing Director

CLEENVIRON PRIVATE LIMITED ROURKELA

*****END OF TEST REPORT*****

Registered Office:
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TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

FORMAT NO: CPL/FM/57

REPORT NO: CPL/R/AAQ/DEC-22/57N

REPORT ISSUE DATE: 26.12.2022

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer: At/Po: RAJGANGPUR, SUNDARGARH – 770017, ODISHA
Sampling Method : IS: 5182

Sample ID No	:	**CPL/AAQ/DEC-22/168**
Location of Sampling	:	**Roof of Canteen Building**
Date of Sampling	:	16.12.2022 –17.12.2022
Sampling Period	:	1635 – 0855 Hrs
Time of Sampling	:	16:20 Hrs
Sample Received on	:	17.12.2022
Date of Test	:	17.12.2022 – 19.12.2022

Sl No	Parameters	Results Obtained	Unit	Method of Analysis	National Ambient Air Quality Standards, 2009 for Industrial, Residential, Rural & Other Area
1	Lead (Pb)	< 0.4	µg/m³	IS : 5182 (PART – 22) 2004, RA 2019	**1 (24 Hours)**
2	Arsenic (As)	< 0.2	ng/m³	CPL/SOP/01/As, Issue No: 02, dtd.: 23.10.2017	**6 (Annual)**
3	Nickel (Ni)	< 12	ng/m³	IS : 5182 (PART – 26) 2020	**20 (Annual)**
4	Carbon Monoxide (CO)	< 0.1	mg/m³	Electro-chemical Sensor Based Digital Monitor	**4 (1 Hour)**
5	Benzene (C_6H_6)	< 0.5	µg/m³	IS : 5182 (PART – 11) 2006, RA 2017	**5 (Annual)**
6	Benzo(a)pyrene Particulate Phase only	< 0.1	ng/m³	IS : 5182 (PART – 12) 2004, RA 2014	**1 (Annual)**

Test Done By

Verified By

Authorized Signatory
Subhanga Praharaj
Managing Director

CLEENVIRON PRIVATE LIMITED ROURKELA

*****END OF TEST REPORT*****

Registered Office:
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TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

FORMAT NO: CPL/FM/57

REPORT NO: CPL/R/AAQ/DEC-22/54N

REPORT ISSUE DATE: 26.12.2022

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer: At/Po: RAJGANGPUR, SUNDARGARH – 770017, ODISHA
Sampling Method : IS: 5182

Sample ID No	:	**CPL/AAQ/DEC-22/136**
Location of Sampling	:	**Near Refractory Gate**
Date of Sampling	:	13.12.2022 – 14.12.2022
Sampling Period	:	1015 – 0918 Hrs
Time of Sampling	:	23:03 Hrs
Sample Received on	:	14.12.2022
Date of Test	:	14.12.2022 – 15.12.2022

Sl No	Parameters	Results Obtained	Unit	Method of Analysis	National Ambient Air Quality Standards, 2009 for Industrial, Residential, Rural & Other Area
1	PM 2.5	28	µg/m³	CPL/SOP/01/PM2.5, Issue No: 02, dtd: 23.10.2017	60 (24 Hours)
2	PM 10	81	µg/m³	IS : 5182 (PART – 23) 2006, RA 2017	100 (24 Hours)
3	Sulphur Dioxide (SO_2)	04	µg/m³	IS : 5182 (PART – 2) 2001, RA 2017	80 (24 Hours)
4	Nitrogen Dioxide (NO_2)	16	µg/m³	IS : 5182 (PART – 6) 2006, RA 2017	80 (24 Hours)
5	Ammonia (NH_3)	42	µg/m³	CPL/SOP/01/NH_3, Issue No: 02, dtd: 23.10.2017	400 (24 Hours)
6	Ozone (O_3)	< 20	µg/m³	IS – 5182 (PART – 9) 1974, RA 2019	180 (1 Hour)

Test Done By

Verified By

Authorized Signatory
Subhanga Praharaj
Managing Director

CLEENVIRON PRIVATE LIMITED ROURKELA

*****END OF TEST REPORT*****

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REPORT ISSUE DATE: 26.12.2022

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer: At/Po: RAJGANGPUR, SUNDARGARH – 770017, ODISHA
Sampling Method : IS: 5182

Sample ID No	:	**CPL/AAQ/DEC-22/136**
Location of Sampling	:	**Near Refractory Gate**
Date of Sampling	:	13.12.2022 – 14.12.2022
Sampling Period	:	1015 – 0918 Hrs
Time of Sampling	:	23.03 Hrs
Sample Received on	:	14.12.2022
Date of Test	:	14.12.2022 – 15.12.2022

Sl No	Parameters	Results Obtained	Unit	Method of Analysis	National Ambient Air Quality Standards, 2009 for Industrial, Residential, Rural & Other Area
1	Lead (Pb)	< 0.4	µg/m³	IS : 5182 (PART – 22) 2004, RA 2019	1 (24 Hours)
2	Arsenic (As)	< 0.2	ng/m³	CPL/SOP/01/As, Issue No: 02, dtd.: 23.10.2017	6 (Annual)
3	Nickel (Ni)	< 12	ng/m³	IS : 5182 (PART – 26) 2020	20 (Annual)
4	Carbon Monoxide (CO)	< 0.1	mg/m³	Electro-chemical Sensor Based Digital Monitor	4 (1 Hour)
5	Benzene (C_6H_6)	< 0.5	µg/m³	IS : 5182 (PART – 11) 2006, RA 2017	5 (Annual)
6	Benzo(a)pyrene Particulate Phase only	< 0.1	ng/m³	IS : 5182 (PART – 12) 2004, RA 2014	1 (Annual)

Test Done By

P. Saseni
Verified By

Authorized Signatory
Subhanga Praharaj
Managing Director

CLEENVIRON PRIVATE LIMITED ROURKELA

*****END OF TEST REPORT*****

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TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

FORMAT NO: CPL/FM/57

REPORT NO: CPL/R/AAQ/DEC-22/53N **REPORT ISSUE DATE: 26.12.2022**

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer: At/Po: RAJGANGPUR, SUNDARGARH – 770017, ODISHA
Sampling Method : IS: 5182, EN 12341

Sample ID No	:	**CPL/AAQ/DEC-22/155**
Location of Sampling	:	**Near Workshop Area (Line – 2)**
Date of Sampling	:	14.12.2022 – 15.12.2022
Sampling Period	:	1140 – 1117 Hrs
Time of Sampling	:	23:37 Hrs
Sample Received on	:	15.12.2022
Date of Test	:	15.12.2022 – 16.12.2022

Sl No	Parameters	Results Obtained	Unit	Method of Analysis	National Ambient Air Quality Standards, 2009 for Industrial, Residential, Rural & Other Area
1	PM 2.5	28	µg/m³	CPL/SOP/01/PM2.5, Issue No: 02, dtd: 23.10.2017	60 (24 Hours)
2	PM 10	81	µg/m³	EN 12341, 1998 Low Volume Sampler	100 (24 Hours)
3	Sulphur Dioxide (SO_2)	05	µg/m³	IS : 5182 (PART – 2) 2001, RA 2017	80 (24 Hours)
4	Nitrogen Dioxide (NO_2)	16	µg/m³	IS : 5182 (PART – 6) 2006, RA 2017	80 (24 Hours)
5	Ammonia (NH_3)	95	µg/m³	CPL/SOP/01/NH_3, Issue No: 02, dtd: 23.10.2017	400 (24 Hours)
6	Ozone (O_3)	27	µg/m³	IS – 5182 (PART – 9) 1974, RA 2019	180 (1 Hour)

Test Done By

Verified By

Authorized Signatory
Subhanga Praharaj
Managing Director

CLEENVIRON PRIVATE LIMITED ROURKELA

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FORMAT NO: CPL/FM/57

REPORT NO: CPL/R/AAQ/DEC-22/53N

REPORT ISSUE DATE: 26.12.2022

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer: At/Po: RAJGANGPUR, SUNDARGARH – 770017, ODISHA
Sampling Method : IS: 5182, EN 12341

Sample ID No	:	**CPL/AAQ/DEC-22/155**
Location of Sampling	:	**Near Workshop Area (Line – 2)**
Date of Sampling	:	14.12.2022 – 15.12.2022
Sampling Period	:	1140 – 1117 Hrs
Time of Sampling	:	23:37 Hrs
Sample Received on	:	15.12.2022
Date of Test	:	15.12.2022 – 16.12.2022

Sl No	Parameters	Results Obtained	Unit	Method of Analysis	National Ambient Air Quality Standards, 2009 for Industrial, Residential, Rural & Other Area
1	Lead (Pb)	< 0.4	µg/m³	IS : 5182 (PART – 22) 2004, RA 2019	1 (24 Hours)
2	Arsenic (As)	< 0.2	ng/m³	CPL/SOP/01/As, Issue No: 02, dtd.: 23.10.2017	6 (Annual)
3	Nickel (Ni)	< 12	ng/m³	IS : 5182 (PART – 26) 2020	20 (Annual)
4	Carbon Monoxide (CO)	< 0.1	mg/m³	Electro-chemical Sensor Based Digital Monitor	4 (1 Hour)
5	Benzene (C_6H_6)	< 0.5	µg/m³	IS : 5182 (PART – 11) 2006, RA 2017	5 (Annual)
6	Benzo(a)pyrene Particulate Phase only	< 0.1	ng/m³	IS : 5182 (PART – 12) 2004, RA 2014	1 (Annual)

Test Done By

P. Saseni
Verified By

Authorized Signatory
Subhanga Praharaj
Managing Director

CLEENVIRON PRIVATE LIMITED ROURKELA

*****END OF TEST REPORT*****

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Annexure-1

MONTHLY AVERAGE VALUE OF PM EMISSIONS FROM STACKS:

Stack attached to	Particulate matter emission in mg/Nm3					
	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23
Cement VRM-1 B/F	8.2	9.4	11.2	9.3	9.4	9.6
Cement VRM-2 B/F	6.4	10.3	12.2	11.3	11.6	7.8
Cement VRM-3 B/F	8.0	9.4	14.6	16.8	8.3	10.8
Kiln & VRM BAG HOUSE, L-I	Kiln Shutdown	Kiln Shutdown	Kiln Shutdown	Kiln Shutdown	8.8	8.5
Coal Mill B/F, L-I	Shutdown	Shutdown	Shutdown	Shutdown	11.0	7.6
Cooler ESP, L-I	Kiln Shutdown	Kiln Shutdown	Kiln Shutdown	Kiln Shutdown	17.7	22.4
Kiln & VRM BAG HOUSE ,L-II	7.3	7.1	10.8	8.2	Kiln Shutdown	Kiln Shutdown
Coal Mill B/F, L-II	9.3	8.1	8.1	11.9	Kiln Shutdown	Kiln Shutdown
Cooler ESP, L-II	11.3	12.0	18.8	6.7	Kiln Shutdown	Kiln Shutdown

AMBIENT AIR MONTHLY AVERAGE DATA (FROM OCTOBER 2022 TO MARCH 2023):

Location of sampling station	SO2 (µg/m3)	NOX(µg/m3)	Particulate matter (size less than 10µm) or PM10(µg/m3)	Particulate matter (size less than 2.5µm) or PM2.5(µg/m3)	Ozone (O3) (µg/m3)	Lead (Pb) (µg/m3)	CO (mg/m3)	Ammonia (NH3) (µg/m3)	Benzene (C6H6) (µg/m3)	Benzo(a) Pyrene (BaP) – particulate phase only (µg/m3)	Arsenic (AS) (µg/m3)	Nickel (Ni) (µg/m3)
Workshop building	05	28	27	76	24	< 0.4	< 0.1	75	< 0.5	< 0.1	< 0.2	< 12.0
Engineering hostel building	08	27	21	69	22	< 0.4	< 0.1	68	< 0.5	< 0.1	< 0.2	< 12.0
Near water harvesting area of CPP	08	62	74	26	26	< 0.4	< 0.1	62	< 0.5	< 0.1	< 0.2	< 12.0
Store building	09	27	25	71	21	< 0.4	< 0.1	67	< 0.5	< 0.1	< 0.2	< 12.0
Canteen building	07	23	20	58	24	< 0.4	< 0.1	63	< 0.5	< 0.1	< 0.2	< 12.0
Loco gate	09	27	28	79	24	< 0.4	< 0.1	70	< 0.5	< 0.1	< 0.2	< 12.0

AMBIENT NOISE MONTHLY AVERAGE DATA (FROM OCTOBER 2022 TO MARCH 2023):

Particular	Sampling locations							
	Store building	Engineering hostel building	Loco gate	Near canteen	OCL township/ colony	Workshop building	CCR building	Near water harvesting area of CPP
Noise level (L day) during day time	63.6	64.3	71.7	64.9	65.4	60.6	65.7	72.7
Noise level (L night) during night time	51.3	59.1	64.6	53.7	48.2	48.5	54.3	64.9