Dalmia cement
FUTURE TODAY

cement! sugar! refractories! power!

DDSP/MOEFCC/001/2023-055
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 Dalmia Cement (Bharat) Limited (Dalmia DSP Unit), At/PO - Rajgangpur, Dist-Sundargarh, Odisha for the period October-2022 to March-2023.**

Ref: Environmental Clearance vide File No. J-11011/232/2016- 1A II (I) dated 16.02.2018.

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-11011/232/2016-1A II (I) dated 16th February, 2018 by MoEF&CC for Dalmia DSP Unit of Dalmia Cement (Bharat) Limited, At. Rajgangpur, Dist. Sundargarh, Odisha.

A. Specific Condition:

Conditions		Status of Compliance
1. An amount of Rs 46.00 Crores proposed towards Enterprise Social Commitment (ESC) shall be utilized as capital expenditure in project mode. The project shall be completed in concurrence with the implementation of the expansion and estimated on the basis of Scheduled Rates.	:	Being Complied. ESC Commitment is being utilized as capital expenditure towards education, health, sanitation, infrastructure development, livelihood and skill development etc.
2. Green belt shall be developed in 12.95 Ha equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant. The plantation shall be completed within one year form the date of issue of EC. In addition to this 1500 additional plants shall be planted within the premises.	:	Being Complied. Green belt is being developed with native species as per CPCB guidelines. Around 12115 tree saplings planted last year. Gap filling is also being carried out owing to 80% survival rate. Efforts are being made to increase the survival rate beyond 90%.
3. The Capital cost Rs. 95.00 Crores and annual recurring cost Rs. 5.00 Crores towards the environmental protection measures shall be earmarked separately. The funds so provided shall not be diverted for any other purpose.	:	Complied. The capital cost of 95 Cr earmarked for environmental protection measures has already been spent and has not been diverted for any other purpose.
4. Kitchen waste shall be composted or convened to biogas for further use.	:	Complied. Mechanical bio-digester has been installed for converting kitchen waste into manure for further utilization in green belt and horticulture.
5. The project proponent shall adopt the slip power recovery system for energy conservation.	:	Complied. Slip power recovery system has been installed wherever applicable.
6. Detailed study of the fauna in the study area shall be carried out within one year. If Schedule-I species are found, then conservation plan for Schedule-I species be	:	Complied. No Schedule I species have been found within the project area as confirmed by

prepared and implemented in consultation with state forest department. The PP shall provide necessary financial resources for implementation of theplan.		the State Forest Department.
7. No ground water shall be used for plant & township	:	Complied. Ground water is neither used for plant or township.

B. General Condition:

1. The project proponent shall (Air Quality Monitoring):

Conditions		Status of Compliance
a. Install 24x7 continuous emission monitoring system at all the stacks to monitor stack emission with respect to parameters prescribed in G.S.R.*No.* 612 (E) dated 25th August, 2014 and subsequent amendment dated 10th May, 2016 from time to time; S.O. 3305 (E) dated 7th December 2015 for thermal power plants as amended from time to time and connected to CPCB online;	:	Complied. Continuous Emission Monitoring System (CEMS) have been installed in all main stacks of our plant and are monitored on regular basis.
b. Monitor fugitive emissions in the plant premises;	:	Complied. Fugitive emissions are being monitored within plant premises regularly.
c. Carryout Continuous Ambient Air Quality monitoring as per National Ambient Air Quality Standards issued by the Ministry vide G.S.R.No. 826(E) dated 16th November 2009 (as amended from time to time) within and outside the plant area at least at four locations covering upwind and downwind directions at an angle of 120 degree each; and	:	Complied. Continuous Ambient Air Quality Monitoring (CAAQM) System have been installed at four locations covering upwind and downwind directions. Online data is being transmitted to Board server.

d. Submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.	:	Complied. Six monthly compliance report along with monitoring results are submitted to MOEF&CC, CPCB and SPCB periodically. Monitoring Report attached as **Annexure I.**

2. The project proponent shall (Water Quality Monitoring):

Conditions		**Status of Compliance**
a) Install 24x7 continuous effluents monitoring system at all the discharge points to monitor treated effluents with respect to parameters prescribed in G.S.R. No. 612 (E) dated 25th August. 2014 and subsequent amendment dated 9th May, 2016 and 10th May 2016 as amended from time to time; S.O.3305 (E) dated 7th December 2015 for thermal power plants as amended from time to time as amended from time to time; and	:	Complied. Cement manufacturing being a dry process, no such effluent is generated and there are no discharge points in the plant. Hence, CEQMS is not applicable.
b) submit monitoring report to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.	:	Complied. Six monthly compliance report along with monitoring results are submitted to statutory bodies periodically.

3.The project proponent shall (Air Pollution Control):

Conditions		**Status of Compliance**
a) Provide appropriate Air Pollution Control (APC) system for all the dust generating points including fugitive dust from all vulnerable sources;	:	Complied. Air Pollution Control (APC) Devices at dust generating points, transfer points have been installed and are operating efficiently.
b) Design suitable capacity of bag filters to handle gas/air shall be 150% of the normal flow from process/ from suction hoods to achieve particulate emission to less than 30 mg/N m^3.	:	Complied. Adequately sized bag filters have been installed to control the PM emissions below 30 mg/Nm^3.

c) Provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags:	:	Complied. Leakage detection with mechanized bag cleaning facility have been provided for better maintenance of bags.
d) Provide pollution control system in the cement plant as per the CREP Guidelines of CPCB;	:	Complied. The required pollution control measures as per CREP guidelines have been provided in the cement plant.
e) Provide sufficient number of mobile or stationery vacuum cleaners to clean plant roads, shop floors, roofs regularly;	:	Complied. Vacuum Cleaners and mechanized road sweepers have been provided to clean plant roads, shop floors, roofs etc.
f) Recycle and reuse lime fines. coal fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after agglomeration;	:	Complied. Lime and coal fines collected in the pollution control devices are recycled and reused to the maximum extent possible.
g) Use leak proof trucks/dumpers for carrying coal and other raw materials and shall cover them with tarpaulin. Use closed bulkers for carrying fly ash;	:	Complied. Tarpaulin covered trucks are used for carrying coal and other raw materials & closed bulkers for fly ash.
h) Provide wind shelter fence and chemical spraying on the raw material stock piles:	:	Complied. Wind Shelter fence near raw material stock piles have been provided at certain critical locations
i) Provide Low NOx burners to control NOx emissions. Regular calibration of the instruments must be ensured. If needed. NOx will be controlled by using SCR/NSCR technologies: and	:	Complied. Low NOx burners have been installed to control NOx emissions within the prescribed standard.
j) Have separate truck parking area and monitor vehicular emissions at regular interval.	:	Complied. A separate truck parking area has been earmarked and vehicular emissions are monitored on regular basis.

4.The project proponent shall (Water Pollution Control):

Conditions		Status of Compliance
a) Adhere to "zero liquid discharge";	:	Being Complied. Cement Manufacturing is a dry process and Zero liquid discharge is being adhered to except monsoon/surface run off.
b) Provide Sewage Treatment Plant for domestic wastewater; and	:	Complied. Domestic wastewater is treated in STP.
c) Provide garland drains and collection pits for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.	:	Complied. Garland drains with collection pits are provided at stock pile area to check water pollution due to surface run off.

5. The project proponent shall (Water Conservation);

Conditions		Status of Compliance
a) Practice rainwater harvesting to maximum possible extent;	:	Being complied. Rainwater is harvested to the maximum extent possible.
b) Provide water meters at the inlet to all unit processes in the cement plants: and	:	Complied. Water meters are in place at the inlet to all unit processes in the cement plant.
c) Make efforts to minimize water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.	:	Complied. Efforts are being made to limit the power consumption as per the stipulated norms.

6.The PP shall (Energy Conservation):

Conditions		Status of Compliance
a) provide Waste heat recovery system for kiln and cooler;	:	Complied. Waste Heat Recovery System has been installed for Kiln and cooler units.
b) make efforts to achieve power consumption less than 65 units/tonne for Portland Pozzolona Cement (PPC) and 85 units/tonne for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker;	:	Complied. Efforts are being made to limit the power consumption as per the stipulated norms.
c) provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights. parking around project area and maintain the same regularly;	:	Complied. Solar power system on building roof top has been installed.
d) provide the project proponent for LED lights in their offices and residential areas:	:	Complied. LED lights are used in offices as well as residential areas.
e) maximize utilization of fly ash, slag and sweetener in cement blend as per BIS standards; and	:	Complied. Maximum utilization of fly ash as well as slag is done in the cement blend.
f) maximize utilization of alternate fuels and Co-processing to achieve best practice norms.	:	Complied. Co-processing with maximum utilization of alternate fuels is done in the cement plant.

7. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by the use of covered conveyor belts/railways as a mode of transport.	:	Complied. Raw material from the mines to the cement plant is transported through closed circuit belt conveyor (CCBC).
8. Used refractories shall be recycled as far as possible.	:	Complied. Used refractories are recycled as much as possible.

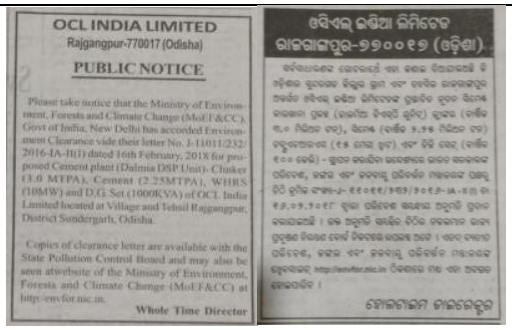
9. The PP shall prepare GHG emissions inventory for the plant and shall submit the program for reduction of the same including carbon sequestration including plantation.	:	Being Complied. GHG emissions inventory for the plant has been prepared and strategies for carbon sequestration is under progress. Plantation is done on a regular basis.
10. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	:	Complied. Emergency Preparedness Plan based on HIRA and DMP is implemented at site along with mock drills.
11. The PP shall Carry-out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.	:	Complied. PPEs have been made mandatory and heat stress analysis is being carried out for workmen working in high temperature zone.
12. The PP shall adhere to the corporate environmental policy and system of the reporting of any infringements/ non-compliance of EC conditions at least once in a year to the Board of Directors and the copy of the board resolution shall be submitted to the MoEF&CC as a part of six-monthly report.	:	Complied. Environment Policy is in place and non-compliances are reviewed at Board of Directors level.
13. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the cement plants shall be implemented.	:	Complied. All recommendations made in the CREP Charter are being adhered to.
14. A dedicated environmental cell with qualified personnel shall be established . The head of the environment cell shall report directly to the head of the organization.	:	Complied. An Environmental Cell with qualified personnel is in place with Head of Cell directly reporting to the Unit Head.

15. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking. mobile toilets, mobile STP, Safe drinking water. medical health care. creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	:	Complied. Necessary basic infrastructure was provided to workers and labour during the construction phase.
16. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.	:	Complied. Noted and stipulations by SPCB and State Govt. are being adhered to from time to time.
17. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment. Forests and Climate Change (MoEF&CC).	:	Complied. Noted. No expansion/modification has been carried out without prior approval of Ministry.
18. The waste oil, grease and other hazardous shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.	:	Complied. Waste Oil, Grease and other Hazardous wastes are handled and disposed off as per HOWM Rules 2016 and amendments thereof.
19. The storage of NH3 and other hazardous chemicals at the site shall be as per the provisions of Manufacture,Storage and Import of Hazardous Chemical Rules, 1989 as amended from time to time.	:	Complied. Noted. Storage of NH3 and other Hazardous Chemicals at site is as per Hazardous Chemicals Rules, 1989 and amendments thereof.
20. The ambient noise levels should conform to the standards prescribed under EPA Rules. 1989 viz. 75 dB(A) during day time and 70 dB(A) during night time.	:	Complied. The ambient noise levels monitored conforms to the prescribed standard.
21. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	:	Complied. The health surveillance of the workers is done periodically and records are maintained for the same as per Factories Act.

22. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.	:	Complied. All environment protection measures and safeguards as mentioned in EIA/EMP report are being adhered to.
23. Ventilation system shall be designed for adequate air changes as per ACGIH document for all tunnels, motor houses, cement bagging plants.	:	Complied. Ventilation system has been designed for adequate air changes in all tunnels, motor houses, cement bagging plants.
24. Sufficient number of colour coded waste collection bins shall be constructed at shop floors in each hop to systematically segregate and store waste materials generated at the shop floors (other than Process waste) in designated colored bins for value addition by promoting reuse of such wastes and for good housekeeping.	:	Complied. Color coded waste bins have been placed at shop floors for segregation and storage of waste materials as a good housekeeping practice.

25. The project proponent shall comply (Post EC Monitoring):

Conditions		**Status of Compliance**
a) send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government:	:	Complied. Copies of the Environmental Clearance were submitted to heads of local bodies and relevant Govt. Offices.
b) put on the clearance letter on the web site of the company for access to the Public.	:	Complied. Environmental Clearance Letter has been uploaded and made available on company website.
c) inform the public through advertisement within seven days from the date of issue 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 that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are	:	Complied. The grant of Environmental Clearance to the project was advertised in two local newspaper i.e. Odisha Today and Manthan dated 22.02.2018.

available with the SPCB and may also be seen at Website of the Ministry of Environment. Forests and Climate Change (MoEF&CC) at http:/envfor.nic.in.		 OCL INDIA LIMITED Rajgangpur-770017 (Odisha) PUBLIC NOTICE Please take notice that the Ministry of Environment, Forests and Climate Change (MoEF&CC), Govt of India, New Delhi has accorded Environment Clearance vide their letter No. J-11011/232/2016-IA-II(I) dated 16th February, 2018 for proposed Cement plant (Dalmia DSP Unit)- Clinker (3.0 MTPA), Cement (2.25MTPA), WHRS (10MW) and D.G. Set (1000KVA) of OCL India Limited located at Village and Tehsil Rajgangpur, District Sundergarh, Odisha. Copies of clearance letter are available with the State Pollution Control Board and may also be seen at website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at http:/envfor.nic.in. Whole Time Director ଓସିଏଲ୍ ଇଣ୍ଡିଆ ଲିମିଟେଡ ରାଜଗାଙ୍ଗପୁର-୭୭୦୦୧୭ (ଓଡ଼ିଶା)
d) upload the status of compliance of the stipulated environment clearance conditions. including results of monitored data on their website and update the same periodically	:	Complied. Status on compliance of EC conditions along with results of monitored data is uploaded periodically.
e) monitor the criteria pollutants Level namely PM10, S02, NOx (ambient levels as well as stack emissions) or critical sectoral parameters indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company;	:	Complied. Stack emissions as well as ambient air quality for sectoral parameters are monitored and results displayed in public as well as uploaded on company website.
f) submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB:	:	Complied. Six monthly compliance reports including results of monitored data are submitted to the statutory bodies.
g) submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules. 1986, as amended subsequently and put on the website of the company;	:	Complied. Environmental Statement in Form V has been submitted to OSPCB on 26.09.2022 and has been uploaded to the company website.
h) 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. Project executed in October, 2018. We have obtained consent to establish (CTE) & consent to operate (CTO) from State Pollution Control Board, Odisha for the commencement of operation since December 2019.

26. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	:	Complied. Noted.
27. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	:	Complied. Noted and will be complied if any.
28. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and that during their presentation to the EAC. The commitment made by the project proponent to the issue raised during Public Hearing shall be implemented by the proponent.	:	Being Complied. All commitments and recommendations made in the EIA/EMP report are being implemented.
29. 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,1981. the Environment (Protection) Act. 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	:	Complied. Noted.
30. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act. 2010.	:	Complied. Noted.

ENVIRONMENTAL MONITORING REPORT

BASED ON DATA GENERATED

FROM

OCTOBER 2022 TO MARCH 2023

FOR

DALMIA DSP UNIT
OF
DALMIA CEMENT (BHARAT) LIMITED
At/PO: RAJGANGPUR, District: SUNDARGARH, ODISHA

AT

CEMENT PLANT (LINE - 3), DDSP UNIT

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 – TC681623000000738F
REPORT NO: CPL/R/SE/MAR-23/73

REPORT ISSUE DATE: 27.03.2023

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA DSP UNIT**
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-23/55**
Location of Sampling	:	LINE – 3
Date of Sampling	:	22.03.2023
Time of Sampling	:	12:01 Hrs
Duration of Sampling	:	24 min
Sample Received on	:	22.03.2023
Date of Test	:	22.03.2023 – 23.03.2023

A.	**General Information About the Stack**	:		
1.	Stack Connected to	:	KILN & RMBH	
2.	Emission Due to	:	Limestone 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	:	600 TPH	
7.	Running Load	:	100%	
B.	**Physical Characteristics of Stack**	:		
1.	Height of Stack from Ground Level	:	186 m	
2.	Height of Sampling Port from Ground Level	:	NA	
3.	Diameter/Dimension of Stack/ Duct at sampling point	:	5.0 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)	**34**	-
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)	**11.88**	-
5.	**Quantity of Gas Emitted (Nm^3/hr)**	IS 11255 Part – 3, 1985 (RA 2018)	**6, 72, 079.61**	-
6.	**Particulate Matter Concentration (mg/Nm^3)**	IS 11255 Part – 1, 1985 (RA 2019)	**12**	**30**
7.	**Sulphur Dioxide(SO_2) Concentration (mg/Nm^3)**	IS 11255 Part – 2, 1985 (RA 2014)	**62.64**	**100**
8.	**Nitrogen Dioxide (NO_2) Concentration (mg/Nm^3)**	IS 11255 Part – 7, 2005 (RA 2017)	**250.2**	**600**
D.	**Pollution Control Device Installed**	**Bag House**		

Test Done By

CLEENVIRON PRIVATE LIMITED ROURKELA

Verified By

Authorized Signatory
Priyambada Nina
Manager Technical

*****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.

Registered Office:
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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 – TC681623000000736F
REPORT NO: CPL/R/SE/MAR-23/71

REPORT ISSUE DATE: 27.03.2023

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer	:	**M/s DALMIA DSP UNIT**
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-23/54**
Location of Sampling	:	Line – 3
Date of Sampling	:	22.03.2023
Time of Sampling	:	10:30 Hrs
Duration of Sampling	:	71 min
mple Received on	:	22.03.2023
Date of Test	:	22.03.2023 – 23.03.2023

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	:	63.8 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)	32	-
Temperature of Gas Emission (°C)	IS 11255 Part – 3, 1985 (RA 2018)	82	-
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)	3.94	-
5. Quantity of Gas Emitted (Nm^3/hr)	IS 11255 Part – 3, 1985 (RA 2018)	3, 75, 266.38	-
6. Particulate Matter Concentration (mg/Nm^3)	IS 11255 Part – 1, 1985 (RA 2019)	08	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*****

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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 – TC681623000000737F
REPORT NO: CPL/R/SE/MAR-23/72

REPORT ISSUE DATE: 27.03.2023

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA DSP UNIT**
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-23/56
Location of Sampling	:	Line – 3
Date of Sampling	:	22.03.2023
Time of Sampling	:	15:15 Hrs
Duration of Sampling	:	38 min
Sample Received on	:	22.03.2023
Date of Test	:	22.03.2023 – 23.03.2023

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	:	50 TPH	
7.	Running Load	:	-	
B.	Physical Characteristics of Stack	:		
1.	Height of Stack from Ground Level	:	64 m	
2.	Height of Sampling Port from Ground Level	:	NA	
3.	Diameter/Dimension of Stack/ Duct at sampling point	:	2.0 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)	37	-
2.	Temperature of Gas Emission (°C)	IS 11255 Part – 3, 1985 (RA 2018)	77	-
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)	16.12	-
5.	Quantity of Gas Emitted (Nm^3/hr)	IS 11255 Part – 3, 1985 (RA 2018)	1, 51, 975.36	-
6.	Particulate Matter Concentration (mg/Nm^3)	IS 11255 Part – 1, 1985 (RA 2019)	06	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*****

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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 – TC681623000000723F
REPORT NO: CPL/R/AAQ/MAR-23/40

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-23/297
Location of Sampling	:	Near Material Gate (Line – 3)
Date of Sampling	:	21.03.2023 – 22.03.2023
Sampling Period	:	12:50 – 12:51 Hrs
Time of Sampling	:	24:01 Hrs
Sample Received on	:	22.03.2023
Date of Test	:	22.03.2023 – 23.03.2023

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	32	µg/m³	CPL/SOP/01/PM2.5, Issue No: 02, dtd: 23.10.2017	60 (24 Hours)
2	PM 10	83	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)	85	µg/m³	IS : 5182 (PART – 25) 2018	400 (24 Hours)
6	Ozone (O_3)	25	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

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TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

FORMAT NO: CPL/FM/57

REPORT NO: CPL/R/AAQ/MAR-23/40N

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-23/297**
Location of Sampling	:	**Near Material Gate**
Date of Sampling	:	21.03.2023 – 22.03.2023
Sampling Period	:	1250 – 1251 Hrs
Time of Sampling	:	24:01 Hrs
Sample Received on	:	22.03.2023
Date of Test	:	22.03.2023 – 23.03.2023

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

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TC - 6816

TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

FORMAT NO: CPL/FM/57

ULR – TC681623000000724F

REPORT NO: CPL/R/AAQ/MAR-23/41

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-23/298**
Location of Sampling	:	**Near Project Gate (Line – 3)**
Date of Sampling	:	21.03.2023 – 22.03.2023
Sampling Period	:	12:35 – 13:01 Hrs
Time of Sampling	:	24.26 Hrs
mple Received on	:	22.03.2023
Date of Test	:	22.03.2023 – 23.03.2023

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	26	µg/m³	IS : 5182 (PART – 24) 2019	60 (24 Hours)
2	PM 10	81	µg/m³	IS : 5182 (PART – 23) 2006, RA 2017	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)	24	µg/m³	IS : 5182 (PART – 6) 2006, RA 2017	80 (24 Hours)
5	Ammonia (NH_3)	73	µg/m³	IS : 5182 (PART – 25) 2018	400 (24 Hours)
6	Ozone (O_3)	28	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

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TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

FORMAT NO: CPL/FM/57

REPORT NO: CPL/R/AAQ/MAR-23/41N

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-23/298**
Location of Sampling	:	**Near Project Gate (Line – 3)**
Date of Sampling	:	21.03.2023 – 22.03.2023
Sampling Period	:	1235 – 1301 Hrs
Time of Sampling	:	24.26 Hrs
Sample Received on	:	22.03.2023
Date of Test	:	22.03.2023 – 23.03.2023

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

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TEST REPORT FOR STACK EMISSION MONITORING

FORMAT NO: CPL/FM/58

REPORT NO: CPL/R/SE/DEC-22/87N **REPORT ISSUE DATE: 20.12.2022**

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **M/s DALMIA DSP UNIT**
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-22/64**
Location of Sampling	:	LINE – 3
Date of Sampling	:	17.12.2022
Time of Sampling	:	15:30 Hrs
Duration of Sampling	:	22 min
Sample Received on	:	17.12.2022
Date of Test	:	17.12.2022 – 18.12.2022

A. General Information About the Stack	:	
1. Stack Connected to	:	KILN & VRM RABH Bag House Outlet
2. Emission Due to	:	Limestone 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	:	600 TPH
7. Running Load	:	50%
B. Physical Characteristics of Stack	:	
1. Height of Stack from Ground Level	:	186 m
2. Height of Sampling Port from Ground Level	:	NA
3. Diameter/Dimension of Stack/ Duct at sampling point	:	5.0 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)	31	-
2. Temperature of Gas Emission (°C)	IS 11255 Part – 3, 1985 (RA 2018)	123	-
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)	13.93	-
5. Quantity of Gas Emitted (Nm^3/hr)	IS 11255 Part – 3, 1985 (RA 2018)	2, 31, 844.40	-
6. Particulate Matter Concentration (mg/Nm^3)	IS 11255 Part – 1, 1985 (RA 2019)	06	30
7. Sulphur Dioxide(SO_2) Concentration (mg/Nm^3)	IS 11255 Part – 2, 1985 (RA 2014)	19.43	100
8. Nitrogen Dioxide (NO_2) Concentration (mg/Nm^3)	IS 11255 Part – 7, 2005 (RA 2017)	238.0	800
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*****

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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-22/89N **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-22/62**
Location of Sampling	:	Line – 3
Date of Sampling	:	17.12.2022
Time of Sampling	:	10:02 Hrs
Duration of Sampling	:	71 min
Sample Received on	:	17.12.2022
Date of Test	:	17.12.2022 – 18.12.2022

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	:	63%
B. Physical Characteristics of Stack	:	
1. Height of Stack from Ground Level	:	63.8 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)	22	-
2. Temperature of Gas Emission (°C)	IS 11255 Part – 3, 1985 (RA 2018)	90	-
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)	3.87	-
5. Quantity of Gas Emitted (Nm^3/hr)	IS 11255 Part – 3, 1985 (RA 2018)	1, 41, 357.69	-
6. Particulate Matter Concentration (mg/Nm^3)	IS 11255 Part – 1, 1985 (RA 2019)	14	30
D. Pollution Control Device Installed	ESP		

Test Done By

Verified By

CLEENVIRON PRIVATE LIMITED ROURKELA

Authorized Signatory
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-22/91N **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-22/60**
Location of Sampling	:	Line – 3
Date of Sampling	:	17.12.2022
Time of Sampling	:	16:20 Hrs
Duration of Sampling	:	34 min
Sample Received on	:	17.12.2022
Date of Test	:	17.12.2022 – 18.12.2022

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	:	50 TPH	
7.	Running Load	:	32 TPH	
B.	**Physical Characteristics of Stack**	:		
1.	Height of Stack from Ground Level	:	64 m	
2.	Height of Sampling Port from Ground Level	:	NA	
3.	Diameter/Dimension of Stack/ Duct at sampling point	:	2.0 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)	**32**	-
2.	**Temperature of Gas Emission (°C)**	IS 11255 Part – 3, 1985 (RA 2018)	**79**	-
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)	**8.02**	-
5.	**Quantity of Gas Emitted (Nm^3/hr)**	IS 11255 Part – 3, 1985 (RA 2018)	**75, 322.35**	-
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

Verified By

CLEENVIRON PRIVATE LIMITED ROURKELA

Authorized Signatory
Subhanga Praharaj
Managing Director

*****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-22/51N

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-22/171**
Location of Sampling	:	**Near Material Gate (Line – 3)**
Date of Sampling	:	17.12.2022
Sampling Period	:	0942 – 1808 Hrs
Time of Sampling	:	08.26 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	26	µg/m³	CPL/SOP/01/PM2.5, Issue No: 02, dtd: 23.10.2017	60 (24 Hours)
2	PM 10	75	µg/m³	IS : 5182 (PART – 23) 2006, RA 2017	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)	22	µg/m³	IS : 5182 (PART – 6) 2006, RA 2017	80 (24 Hours)
5	Ammonia (NH_3)	34	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

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TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

FORMAT NO: CPL/FM/57

REPORT NO: CPL/R/AAQ/DEC-22/51N

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-22/171**
Location of Sampling	:	**Near Material Gate (Line – 3)**
Date of Sampling	:	17.12.2022
Sampling Period	:	0942 – 1808 Hrs
Time of Sampling	:	08:26 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

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TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

FORMAT NO: CPL/FM/57

REPORT NO: CPL/R/AAQ/DEC-22/52N **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-22/170**
Location of Sampling	:	**Near Project Gate**
Date of Sampling	:	17.12.2022
Sampling Period	:	0920 – 1825 Hrs
Time of Sampling	:	09:05 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	26	µg/m³	CPL/SOP/01/PM2.5, Issue No: 02, dtd: 23.10.2017	60 (24 Hours)
2	PM 10	79	µg/m³	EN 12341, 1998 Low Volume Sampler	100 (24 Hours)
3	Sulphur Dioxide (SO_2)	13	µg/m³	IS : 5182 (PART – 2) 2001, RA 2017	80 (24 Hours)
4	Nitrogen Dioxide (NO_2)	34	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)	24	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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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/DEC-22/52N

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-22/170**
Location of Sampling	:	**Near Project Gate**
Date of Sampling	:	17.12.2022
Sampling Period	:	0920 – 1825 Hrs
Time of Sampling	:	09.05 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

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Annexure-1

MONTHLY AVERAGE VALUE FOR PM EMISSION FROM STACKS:

Stack attached to	Particulate matter emission in mg/Nm3					
	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23
Cyclone +Bag House of Kiln & HRP-3	6.2	6.7	8.3	11.6	13.3	9.6
Bag Filter of Coal Mill-3	7.3	5.6	9.7	8.9	9.6	7.8
ESP of Cooler-3	8.8	8.6	7.4	10.1	16.9	11.9

AMBIENT AIR AVGERAGE 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)
STP	06	24	26	81	28	< 0.4	< 0.1	73	< 0.5	< 0.1	< 0.2	< 12.0
Material Gate	09	27	32	83	25	< 0.4	< 0.1	85	< 0.5	< 0.1	< 0.2	< 12.0

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

Particular	Sampling locations	
	STP	Material Gate
Noise level(L day) during day time	63.5	61.9
Noise level (L night) during night time	58.6	54.3