

CPP/RGP/ENV/ ECHC//299/2022

Date: 01.06.2022

**The State Environment Impact Assessment Authority,
(SEIAA), ODISHA
Qtr. No. 5RF-2/1, Unit – IX,
BHUBANESWAR – 751022**

Sub:- Submission of six monthly compliance report for the period (October, 2021 to March, 2022) of 2x27 MW Captive Power Plant of M/s Dalmia Cement (Bharat) Limited [Formerly, OCL India Limited], At. Rajgangpur, Tehsil-Rajgangpur, Dist- Sundargarh, Odisha.

Ref: - Environmental Clearance Letter No. SEIAA 619 / SEIAA – 128/10, dated 22 December 2010.

Dear Sir,

With reference to above letter, we enclose herewith the six monthly compliance report (Ending March, 2022) of conditions stipulated in the Environmental Clearance for the Captive power plant of M/s Dalmia Cement (Bharat) Limited.

Thanking you

For, **Dalmia Cement (Bharat) Limited, Rajgangpur**


Dr. Satish Mishra
Sr.G.M (Env.)/C.

Encl: As above

Copy to:

**The Director (S)
Government of India
Ministry of Environment, Forest & Climate Change
Eastern Regional Office, A/3, Chandrasekharpur
BHUBANESWAR - 751023**

SIX MONTHLY COMPLIANCE REPORT
(OCTOBER, 2021 TO MARCH, 2022)

OF

ENVIRONMENT CLEARANCE LETTER NO.
SEIAA 619 / SEIAA-128/10 DATED 22 DEC, 2010

FOR

(2X27 MW) CAPTIVE POWER PLANT PROJECT

BY

DALMIA CEMENT (BHARAT) LIMITED

RAJGANGPUR-770017

DIST-SUNDARGARH

ODISHA

Sub: Submission of Six monthly compliance report (October, 2021 to March, 2022) of condition stipulated in Environmental Clearance Letter No. SEIAA 619 / SEIAA-128/10 dated 22 December 2010 by SEIAA, Odisha for (2x27MW) Captive Power Plant Project of M/s. Dalmia Cement (Bharat) Limited [Formerly, OCL India Limited], Rajgangpur.

SL.No.	Description of condition	Compliance status
i	The applicant (Project proponent) will take necessary measures for prevention, control and mitigation of Air Pollution, Water pollution, Noise pollution and Land pollution including solid waste management as mentioned by him in form-1, Final EIA reports and Environment Management Plant (EMP) in compliance with the prescribed statutory norms and standards.	<p>Following Pollution control systems are installed for prevention, control of pollution and mitigation of Air, Water, Noise, & Land pollution including solid waste management.</p> <p><u>Air Pollution Control, systems adopted</u></p> <ul style="list-style-type: none"> • Two nos. high efficiency Electrostatic Precipitator (ESP) with six fields. • Pneumatic ash conveying system. • Ash storage silos with bag filter arrangement. • Pneumatic ash transportation system from CPP to our cement plant. • Conveyor belt with covering arrangement. • Bag filters (dust extraction) and dust suppression system in Coal handling transfer points coal conveying circuits respectively. • Water sprinkling arrangement on the road and side cladding wall of 30 mtr. Height for preventing fugitive dust generation. <p><u>Water pollution Control, systems adopted</u></p> <ul style="list-style-type: none"> • STP is under operation for the treatment of domestic waste water for CPP in Lin-2 area and treated water is utilized for green belt development/ plantation. • Water generated from process are recycled and reused. Rain water harvesting pond made inside plant for holding about 30000m³ of water for reutilization in CPP. <p><u>Noise Pollution Control, systems adopted</u></p> <ul style="list-style-type: none"> • Compressor, TG area are acoustically sealed to prevent noise pollution. • In stream vent line silencers are provided. • Seal blower silencers in Fans. <p><u>Solid Waste Management, systems adopted</u></p> <ul style="list-style-type: none"> • Sludge from STP is utilized for green belt

		<p>development / plantation.</p> <ul style="list-style-type: none"> • Solid waste (fly ash & Bottom ash) is utilized as raw material for cement manufacturing process in our own cement plant
ii	The applicant will take necessary steps for Socio-economic development of the people of the area on need based assessment for providing employment education, health care, drinking water and sanitation, road and communication facilities etc., after a detailed primary socio economic survey of the core zone.	A detailed socio-economic survey report has already been submitted. All steps are being taken under various CSR activities in regular basis.
iii	The applicant will comply with the points, concerns and issued raised by the people during public hearing on 29 th May 2009 in accordance with the comments made by him thereon.	Complied
iv	The applicant will take statutory clearance / approval / permission from the concerned authorities in respect of his project as and when required.	Complied
v	For post environmental clearance monitoring, the applicant will submit half yearly compliance report in respect of the stipulated terms and conditions of Environmental clearance to the State Environmental Impact Authority (SEIAA/), Orissa on 1 st June and 1 st December of each calendar year.	The half yearly Compliance report is being submitted regularly.
vi	High efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate matter emission does not exceed 50 mg/Nm ³ .	Complied and stack emission are well within standard. The revised standard for TPP as per MoEF&CC notification No. S.O.-3305(E), Dtd. 7.12.2015 to be abide thereof.
vii	The proponent may use bottom ash as a supplement for the raw material for cement production with approved technology confirming to the relevant standards specification.	We have established use of bottom ash in cement manufacturing process and accordingly mix is prepared in confirmation to the standards.
viii	The unit shall be allowed to use Washery rejects as raw material having <60% ash content	Complied
ix	The proponent shall treat the flue gas through Flue Gas De-sulfurisation (FGD), if SO ₂ emission level exceeds the prescribed norm	Adequate measures are taken to control So ₂ emission. Present limits are well within the prescribed standard as per the MoEF&CC notification No. S.O.-3305(E), Dtd. 7.12.2015 .
x	No ground water shall be extracted for the project work at any stage.	Noted for compliance
xi	Adequate dust extraction system such as cyclones/	Adequate dust extraction systems are

	bag filters and water spray system in dust areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	installed as mentioned below- i) 8 nos of bag filters in coal handling transfer points to control fugitive dust ii) Bag filter replacement in fly-ash silo & controlled/pneumatic fly ash transportation system from CPP to cement plant eliminate fugitive dust. iii) Covered conveyor belts provided for local transportation to eliminate fugitive dust. iv) Side cladding alongside of CPP boundary to control dust emission to nearby locality.
xii	Fly ash shall be collected in dry form and storage facility (silos) shall be provided. 100% fly ash utilized shall be ensured as per fly ash notification of MoEF, Govt. of India. Unutilized fly ash and bottom ash shall be stored in the ash pond separately through high concentration slurry disposal method. Mercury levels along with other heavy metals (Pb, Cr, As, etc.) should be mentioned in the fly ash / bottom ash, leachates and effluents emanating from the ash pond.	100 % fly ash is utilized in our cement plant. Bottom ash is stored in silo and being utilized as raw material in cement manufacturing.
xiii	The ash pond should be constructed with impervious lining and ash pond embankment should be stone pitched.	Ash pond storage is not required, as because 100% fly ash are being utilized for our cement manufacturing process.
xiv	The treated effluents conforming to the prescribed standards shall be re-circulated and reused within the plant. There shall be no discharge outside the plant boundary. Arrangements shall be made so that effluents and storm water do not get mixed.	The effluent after treatment conforms to the prescribed norms. We ensure 'zero' discharge by re-circulating and reusing the treated water. Care is being taken to elude any mixing of effluent with storm water.
xv	A sewage treatment plant shall be provided and the treated sewage shall be used for raising greenbelt/ plantation.	Sewage treatment plant (STP) is under operation and treated sewage water is used for greenbelt development / plantation.
xvi	Rainwater harvesting should be adopted. Central Groundwater Authority / Board shall be consulted for finalization of appropriate rainwater harvesting technology within a period of three months from the date of clearance and details shall be furnished to the SEIAA, Orissa.	Complied and rain water harvesting pond has been made followed by storm water collection in CPP area.
xvii	Adequate safety measures shall be provided in the LDO and / HFO / LSHS shall be made in the plant area to check / minimize spontaneous fires in coal yard, especially during summer season. Details of these measures to be taken along with location plant layout shall be submitted to the SEIAA, Orissa.	Adequate measures have been taken.

xviii	Storage facilities for auxiliary liquid fuel such as LDO and /HFO / LSHS shall be made in the plant area where risk is minimum. On site and off site Disaster Management plans shall be prepared to meet any eventuality in case of an accident taking place. Mock drills shall be conducted regularly and based on the same, modification required if any, shall be incorporated in the Disaster Management plan (DMP). Sulfur content in the liquid fuel will not exceed 0.5%.	Complied with the condition, as specified and also in terms of the guidelines under the Explosives Rules, 2008.																																																			
xix	Regular monitoring of ground water in and around the ash pond shall be carried out, records maintained and half yearly reports shall be furnished to the SEIAA, Orissa	Not applicable, as we do not require ash pond. Since, fly ash is stored in the fly ash silo and gets utilized for cement plant.																																																			
xx	A GREEN BELT of adequate width and density preferably with local species along the periphery of the plant & alongside roads, etc. shall be raised so as to provide protection against particulates and noise. It must be ensured that at least 33% of the total land area shall be under permanent green belt throughout the year & for this purpose they may engage professionals in this field for creation and maintenance of the green belt. An action plan for this purpose shall be prepared accordingly and submitted to the SEIAA, Orissa.	<p>Complied. Green belt is developed in nearby areas as well as, in & around of our Cement, CPP plant. Plantation update till FY: 2021 is given here under in cumulative basis:</p> <table border="1"> <thead> <tr> <th colspan="3">DETAILS OF YEAR WISE PLANTATION</th> </tr> <tr> <th>YEAR</th> <th>NO. TREES PLANTED</th> <th>PLANTATION IN & AROUND OF INDUSTRY/ SAPLING DISTRIBUTED</th> </tr> </thead> <tbody> <tr> <td>Up to march, FY:2007-08</td> <td>148655</td> <td></td> </tr> <tr> <td>2008-09</td> <td>155155</td> <td>2300</td> </tr> <tr> <td>2009-10</td> <td>162401</td> <td>4800</td> </tr> <tr> <td>2010-11</td> <td>171757</td> <td>6964</td> </tr> <tr> <td>2011-12</td> <td>177957</td> <td>9964</td> </tr> <tr> <td>2012-13</td> <td>183957</td> <td>14164</td> </tr> <tr> <td>2013-14</td> <td>190246</td> <td>19664</td> </tr> <tr> <td>2014-15</td> <td>196660</td> <td>27664</td> </tr> <tr> <td>2015-16</td> <td>203892</td> <td>92664</td> </tr> <tr> <td>2016-17</td> <td>209442</td> <td>130364</td> </tr> <tr> <td>2017-18</td> <td>212431</td> <td>138922</td> </tr> <tr> <td>2018-19</td> <td>214819</td> <td>139922</td> </tr> <tr> <td>2019-20</td> <td>245077</td> <td>139922</td> </tr> <tr> <td>2020-21</td> <td>255577</td> <td>139922</td> </tr> <tr> <td>2021-22</td> <td>288423</td> <td>151922</td> </tr> </tbody> </table>	DETAILS OF YEAR WISE PLANTATION			YEAR	NO. TREES PLANTED	PLANTATION IN & AROUND OF INDUSTRY/ SAPLING DISTRIBUTED	Up to march, FY:2007-08	148655		2008-09	155155	2300	2009-10	162401	4800	2010-11	171757	6964	2011-12	177957	9964	2012-13	183957	14164	2013-14	190246	19664	2014-15	196660	27664	2015-16	203892	92664	2016-17	209442	130364	2017-18	212431	138922	2018-19	214819	139922	2019-20	245077	139922	2020-21	255577	139922	2021-22	288423	151922
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xxi	First aid and sanitation arrangements shall be made for the drives and other contract workers during construction phase.	Complied																																																			
xxii	Noise levels emanating from turbines and air compressors shall be limited to 75 dB (A); for people working in the high noise area, requisite personal protective equipment's like earplugs / ear muffs etc .	Noise level is maintained with in the permissible limit. People working in the noisy area are provided with ear muff & adequate Personal protective																																																			

	shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc. shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non-noisy / less noisy areas.	equipment (PPE).
xxiii	Regular monitoring of ground level concentrating of SO ₂ , NO _x , RSPM (PM ₁₀ & PM _{2.5}) etc. shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequently of monitoring shall be decided in consultation with SPCB, Orissa	Regular monitoring of SO ₂ , NO _x , RSPM (PM ₁₀ & PM _{2.5}) etc. is being carried out as per guidelines of SPCB by an empaneled accredited agency. Environmental Monitoring Report is enclosed as Annexure-I. Also, online monitoring through CEMS and CAAQMS are in place for regular transmission of data to CPCB and SPCB, as per new guidelines.
xxiv	Provision shall be made for housing of constructing labours within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Proper care has been taken to look into Labour management during project work.
xxv	A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.	Environment cells have already been formed for implementation of environmental safeguards.
xxvi	Half yearly report on the status of implementation of the stipulated conditions and environmental safeguards shall be submitted to the appropriate authorities.	Reports are being submitted in regular basis.
xxvii	Separate fund shall be allocated for implementation of environmental protection measures along with item-wise break- up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should be reported.	Earmarked funds have allocated for implementation of environmental protection measures.
xxviii	The need of the local people should be appropriately addresses in the CSR activities to be undertaken by the project proponent in the area. An action plan in this regard should be prepared and submitted to SEIAA, Odisha.	Action plan with implementation are undertaken under CSR activities.
xxix	The above mentioned stipulated conditions shall be complied in time bound manner. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract under the provisions of Environmental Protection (EP) Act, 1986.	Comply with the stipulated conditions, as per E.P.Act, 1986.

ENVIRONMENTAL MONITORING REPORT

BASED ON DATA GENERATED

FROM

OCTOBER 2021 TO MARCH 2022

FOR

DALMIA CEMENT (BHARAT) LIMITED

[Formerly, OCL India Limited]

At/Po: RAJGANGPUR, District: SUNDARGARH, ODISHA

AT

CAPTIVE POWER PLANT (CPP)

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

TEST REPORT FOR STACK EMISSION MONITORING

ULR - TC68162200000680F
REPORT NO: CPL/R/SE/MAR-22/86

FORMAT NO: CPL/FM/58

REPORT ISSUE DATE: 26.03.2022

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer : RGP Cement Factory, Rajgangpur - 770017, Dist: Sundargarh, Odisha
Sample ID No : **CPL/SE/MAR-22/29**
Name of Stack Monitored : Captive Power Plant (ESP Outlet)
Stack Connected To : Boiler - 1 & 2
Shape of Stack : Circular
Date of Sampling : 09.03.2022
Time of Sampling : 11 : 15 Hrs
Method of Sampling : IS 11255 (Part - 1), (Part - 2) : 1985, RA 2019 & (Part - 7): 2005, RA 2017
Sample Received on : 09.03.2022
Date of Test : 10.03.2022

Ambient Temperature in °C : 35
Stack Temperature in °C : 115
Average Stack Gas Velocity in m/sec : 4.22
Iso-kinetic Flow Rate in LPM : 14
Duration of Sampling in minute : 71

	<u>Results Obtained</u>	<u>Permissible Limits</u>
Particulate Matter Concentration	: 11 mg/Nm ³	50 mg/Nm ³
Sulphur Dioxide as SO ₂	: 508.54 mg/Nm ³	600 mg/Nm ³
Nitrogen Dioxide as NO ₂	: 252.7 mg/Nm ³	300 mg/Nm ³

P. Saseeni
Test Done By

[Signature]
Verified By



[Signature]
Authorized Signatory
Subhanga Praharaj
Managing Director/QM

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

Page 1 of 1

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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/PM/58

REPORT NO: CPL/R/SE/MAR-22/86N

REPORT ISSUE DATE: 26.03.2022

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer : RGP Cement Factory, Rajgangpur – 770017, Dist: Sundargarh, Odisha
Sample ID No : **CPL/SE/MAR-22/29**
Name of Stack Monitored : Captive Power Plant (ESP Outlet)
Stack Connected To : Boiler – 1 & 2
Shape of Stack : Circular
Date of Sampling : 09.03.2022
Time of Sampling : 11 : 15 Hrs
Method of Sampling : IS 11255 (Part – 1), (Part – 2) : 1985, RA 2019 & (Part – 7) : 2005, RA 2017
Sample Received on : 09.03.2022
Date of Test : 12.03.2022

Ambient Temperature in °C : 35
Stack Temperature in °C : 115
Average Stack Gas Velocity in m/sec : 4.22
Iso-kinetic Flow Rate in LPM : 14
Duration of Sampling in minute : 71

	<u>Results Obtained</u>	<u>Permissible Limits</u>
Mercury (as Hg) Concentration	: < 0.02 mg/Nm ³	0.03 mg/Nm ³

P. Sasaki
Test Done By

[Signature]
Verified By



[Signature]
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Subhanga Praharaj
Managing Director/QM

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Registered Office:

Branch Office: Rourkela

Cleenviron Private Limited

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



TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

ULR – TC68162200000671F

FORMAT NO: CPL/FM57

REPORT NO: CPLR/AAQ/MAR-22/40

REPORT ISSUE DATE: 26.03.2022

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 (Part – 2), (Part – 6) & (Part – 11), EN 12341

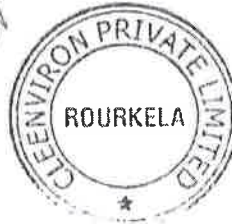
Environmental Conditions During Monitoring	Min. Temp.: 17.3°C	Max. Temp.: 35.1°C	Min. RH: 25%	Max. RH: 88%
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Sample ID No	:	CPL/AAQ/MAR-22/124
Location of Sampling	:	Near Water Treatment Plant (Line – 2)
Date of Sampling	:	08.03.2022 – 09.03.2022
Sampling Period	:	1525 – 1525 Hrs
Time of Sampling	:	24.00 Hrs
Sample Received on	:	09.03.2022
Date of Test	:	09.03.2022 – 10.03.2022

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	29	µg/m ³	IS : 5182 (PART – 24) 2019	60 (24 Hours)
2	PM 10	79	µg/m ³	IS : 5182 (PART – 23) 2006, RA 2017	100 (24 Hours)
3	Sulphur Dioxide (SO ₂)	04	µg/m ³	IS : 5182 (PART – 2) 2001, RA 2017	80 (24 Hours)
4	Nitrogen Dioxide (NO ₂)	11	µg/m ³	IS : 5182 (PART – 6) 2006, RA 2017	80 (24 Hours)
5	Ammonia (NH ₃)	86	µg/m ³	IS : 5182 (PART – 25) 2018	400 (24 Hours)
6	Ozone (O ₃)	< 20	µg/m ³	IS – 5182 (PART – 9) 1974, RA 2019	180 (1 Hour)

P. Saseni
Test Done By

[Signature]
Verified By



[Signature]
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Subhanga Praharaj
Managing Director/QM

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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-22/40N

REPORT ISSUE DATE: 26.03.2022

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 (Part – 2), (Part – 6) & (Part – 11), EN 12341**

Environmental Conditions During Monitoring : Min. Temp.: 17.3°C | Max. Temp.: 35.1°C | Min. RH: 25% | Max. RH: 88%

Sample ID No	:	CPL/AAQ/MAR-22/124
Location of Sampling	:	Near Water Treatment Plant (Line – 2)
Date of Sampling	:	08.03.2022 – 09.03.2022
Sampling Period	:	1525 – 1525 Hrs
Time of Sampling	:	24.00 Hrs
Sample Received on	:	09.03.2022
Date of Test	:	09.03.2022 – 10.03.2022

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/m ³	IS : 5182 (PART – 22) 2004, RA 2019	1 (24 Hours)
2	Arsenic (As)	< 0.2	ng/m ³	CPL/SOP/01/As, Issue No: 02, dtd.: 23.10.2017	6 (Annual)
3	Nickel (Ni)	< 12	ng/m ³	IS : 5182 (PART – 26) 2020	20 (Annual)
4	Carbon Monoxide (CO)	< 0.1	mg/m ³	Electro-chemical Sensor Based Digital Monitor	4 (1 Hour)
5	Benzene (C ₆ H ₆)	< 0.5	µg/m ³	IS : 5182 (PART – 11) 2006, RA 2017	5 (Annual)
6	Benzo(a)pyrene Particulate Phase only	< 0.1	ng/m ³	IS : 5182 (PART – 12) 2004, RA 2014	1 (Annual)

P. Saseeni
Test Done By

[Signature]
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Registered Office:

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



TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

ULR - TC68162200000664F

FORMAT NO: CPL/FM57

REPORT NO: CPL/R/AAQ/MAR-22/33

REPORT ISSUE DATE: 26.03.2022

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 (Part - 2), (Part - 6) & (Part - 11), EN12341**

Environmental Conditions During Monitoring : Min. Temp.: 17.3°C Max. Temp.: 35.1°C Min. RH: 25% Max. RH: 88%

Sample ID No	:	CPL/AAQ/MAR-22/125
Location of Sampling	:	Near Workshop Building (Line - 2)
Date of Sampling	:	08.03.2022 - 09.03.2022
Sampling Period	:	1510 - 1510 Hrs
Time of Sampling	:	24.00 Hrs
Sample Received on	:	09.03.2022
Date of Test	:	09.03.2022 - 10.03.2022

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	18	µg/m ³	IS : 5182 (PART - 24) 2019	60 (24 Hours)
2	PM 10	47	µg/m ³	IS : 5182 (PART - 23) 2006, RA 2017	100 (24 Hours)
3	Sulphur Dioxide (SO ₂)	05	µg/m ³	IS : 5182 (PART - 2) 2001, RA 2017	80 (24 Hours)
4	Nitrogen Dioxide (NO ₂)	15	µg/m ³	IS : 5182 (PART - 6) 2006, RA 2017	80 (24 Hours)
5	Ammonia (NH ₃)	60	µg/m ³	IS : 5182 (PART - 25) 2018	400 (24 Hours)
6	Ozone (O ₃)	< 20	µg/m ³	IS - 5182 (PART - 9) 1974, RA 2019	180 (1 Hour)

p. Saseni
Test Done By

[Signature]
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Managing Director/QM

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TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

FORMAT NO: CPL/FM57

REPORT NO: CPL/R/AAQ/MAR-22/33N

REPORT ISSUE DATE: 26.03.2022

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 (Part – 2), (Part – 6) & (Part – 11), EN12341**

Environmental Conditions During Monitoring : Min. Temp.: 17.3°C Max. Temp.: 35.1°C Min. RH: 25% Max. RH: 88%

Sample ID No	:	CPL/AAQ/MAR-22/125
Location of Sampling	:	Near Workshop Building (Line – 2)
Date of Sampling	:	08.03.2022 – 09.03.2022
Sampling Period	:	1510– 1510 Hrs
Time of Sampling	:	24.00 Hrs
Sample Received on	:	09.03.2022
Date of Test	:	09.03.2022 – 10.03.2022

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/m ³	IS : 5182 (PART – 22) 2004, RA 2019	1 (24 Hours)
2	Arsenic (As)	< 0.2	ng/m ³	CPL/SOP/01/As, Issue No: 02, dtd.: 23.10.2017	6 (Annual)
3	Nickel (Ni)	< 12	ng/m ³	IS : 5182 (PART – 26) 2020	20 (Annual)
4	Carbon Monoxide (CO)	< 0.1	mg/m ³	Electro-chemical Sensor Based Digital Monitor	4 (1 Hour)
5	Benzene (C ₆ H ₆)	< 0.5	µg/m ³	IS : 5182 (PART – 11) 2006, RA 2017	5 (Annual)
6	Benzo(a)pyrene Particulate Phase only	< 0.1	ng/m ³	IS : 5182 (PART – 12) 2004, RA 2014	1 (Annual)

P. Sasene
Test Done By

[Signature]
Verified By



[Signature]
Authorized Signatory
Subhanga Praharaj
Managing Director/QM

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

Page 1 of 1

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Registered Office:

TEST REPORT FOR STACK EMISSION MONITORING

ULR – TC681621000002539F
REPORT NO: CPL/R/SE/DEC-21/73

FORMAT NO: CPL/PM/58

REPORT ISSUE DATE: 30.12.2021

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer : RGP Cement Factory, Rajgangpur – 770017, Dist: Sundargarh, Odisha
Sample ID No : **CPL/SE/DEC-21/63**
Name of Stack Monitored : Power Plant ESP Outlet
Stack Connected To : Boiler – 1 & 2
Shape of Stack : Circular
Date of Sampling : 22.12.2021
Time of Sampling : 09 : 15 Hrs
Method of Sampling : IS 11255 (Part – 1), (Part – 2) : 1985, RA 2014 & (Part – 7) : 2005, RA 2017
Sample Received on : 23.12.2021
Date of Test : 24.12.2021

Ambient Temperature in °C : 25
Stack Temperature in °C : 119
Average Stack Gas Velocity in m/sec : 3.63
Iso-kinetic Flow Rate in LPM : 11
Duration of Sampling in minute : 90

Particulate Matter Concentration
Sulphur Dioxide as SO₂
Nitrogen Dioxide as NO₂

Results Obtained
: 17 mg/Nm³
: 449.69 mg/Nm³
: 230.5 mg/Nm³

Permissible Limits
50 mg/Nm³
600 mg/Nm³
300 mg/Nm³

P. Saseni
Test Done By

[Signature]
Verified By



[Signature]
Authorized Signatory
Subhanga Praharaj
Managing Director/QM

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Page 1 of 1

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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-21/73N

REPORT ISSUE DATE: 30.12.2021

SAMPLE DRAWN BY CLEENVIRON PRIVATE LIMITED

Name of the Customer : **DALMIA CEMENT (BHARAT) LIMITED**
Address of the Customer : RGP Cement Factory, Rajgangpur – 770017, Dist: Sundargarh, Odisha
Sample ID No : **CPL/SE/DEC-21/63**
Name of Stack Monitored : Power Plant ESP Outlet
Stack Connected To : Boiler – 1 & 2
Shape of Stack : Circular
Date of Sampling : 22.12.2021
Time of Sampling : 09 : 15 Hrs
Method of Sampling : IS 11255 (Part – 1), (Part – 2) : 1985, RA 2014 & (Part – 7) : 2005, RA 2017
Sample Received on : 23.12.2021
Date of Test : 24.12.2021

Ambient Temperature in °C : 25
Stack Temperature in °C : 119
Average Stack Gas Velocity in m/sec : 3.63
Iso-kinetic Flow Rate in LPM : 11
Duration of Sampling in minute : 90

	<u>Results Obtained</u>	<u>Permissible Limits</u>
Mercury (as Hg) Concentration	: < 0.02 mg/Nm ³	0.03 mg/Nm ³

P. Saseni
Test Done By

[Signature]
Verified By



[Signature]
Authorized Signatory
Subhanga Praharaj
Managing Director/QM

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

Page 1 of 1

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Registered Office:

Branch Office & Laboratory:

Cleenviron Private Limited

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



TC - 6816

TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

ULR - TC681621000002530F

FORMAT NO: CPL/FM/57

REPORT NO: CPL/R/AAQ/DEC-21/39

REPORT ISSUE DATE: 30.12.2021

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 (Part - 2), (Part - 6) & (Part - 11), EN 12341**

Environmental Conditions During Monitoring : Min. Temp.: 8.1°C Max. Temp.: 28.5°C Min. RH: 31% Max. RH: 99%

Sample ID No	:	CPL/AAQ/DEC-21/289
Location of Sampling	:	Near Captive Power Plant (Line - 2)
Date of Sampling	:	21.12.2021 - 22.12.2021
Sampling Period	:	1350 - 1030 Hrs
Time of Sampling	:	20.40 Hrs
Sample Received on	:	23.12.2021
Date of Test	:	23.12.2021 - 24.12.2021

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	24	µg/m ³	IS : 5182 (PART - 24) 2019	60 (24 Hours)
2	PM 10	68	µg/m ³	IS : 5182 (PART - 23) 2006, RA 2017	100 (24 Hours)
3	Sulphur Dioxide (SO ₂)	04	µg/m ³	IS : 5182 (PART - 2) 2001, RA 2017	80 (24 Hours)
4	Nitrogen Dioxide (NO ₂)	12	µg/m ³	IS : 5182 (PART - 6) 2006, RA 2017	80 (24 Hours)
5	Ammonia (NH ₃)	< 20	µg/m ³	IS : 5182 (PART - 25) 2018	400 (24 Hours)
6	Ozone (O ₃)	< 20	µg/m ³	IS - 5182 (PART - 9) 1974, RA 2019	180 (1 Hour)

P. Saseeni
Test Done By

[Signature]
Verified By



[Signature]
Authorized Signatory
Subhanga Praharaj
Managing Director/QM

END OF TEST REPORT

Page 1 of 1

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Registered Office:

Cleenviron Private Limited

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

TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

FORMAT NO: CPL/PM/57

REPORT NO: CPL/R/AAQ/DEC-21/38N

REPORT ISSUE DATE: 30.12.2021

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 (Part – 2), (Part – 6) & (Part – 11), EN 12341**

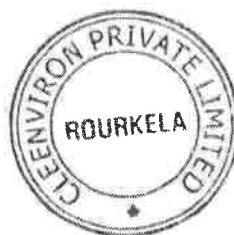
Environmental Conditions During Monitoring	:	Min. Temp.: 8.1°C	Max. Temp.: 28.5°C	Min. RH: 31%	Max. RH: 99%
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Sample ID No	:	CPL/AAQ/DEC-21/289
Location of Sampling	:	Near Captive Power Plant (Line – 2)
Date of Sampling	:	21.12.2021 – 22.12.2021
Sampling Period	:	1350 – 1030 Hrs
Time of Sampling	:	20.40 Hrs
Sample Received on	:	23.12.2021
Date of Test	:	23.12.2021 – 24.12.2021

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/m ³	IS : 5182 (PART – 22) 2004, RA 2019	1 (24 Hours)
2	Arsenic (As)	< 0.2	ng/m ³	CPL/SOP/01/As, Issue No: 02, dtd.: 23.10.2017	6 (Annual)
3	Nickel (Ni)	< 12	ng/m ³	IS : 5182 (PART – 26) 2020	20 (Annual)
4	Carbon Monoxide (CO)	< 0.1	mg/m ³	Electro-chemical Sensor Based Digital Monitor	4 (1 Hour)
5	Benzene (C ₆ H ₆)	< 0.5	µg/m ³	IS : 5182 (PART – 11) 2006, RA 2017	5 (Annual)
6	Benzo(a)pyrene Particulate Phase only	< 0.1	ng/m ³	IS : 5182 (PART – 12) 2004, RA 2014	1 (Annual)

P. Saseni
Test Done By

[Signature]
Verified By



[Signature]
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Subhanga Prahara
Managing Director/QM

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TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

ULR – TC681621000002529F

FORMAT NO: CPLFM/57

REPORT NO: CPL/R/AAQ/DEC-21/38

REPORT ISSUE DATE: 30.12.2021

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 (Part – 2), (Part – 6) & (Part – 11), EN 12341

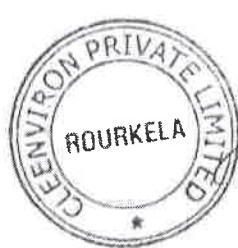
Environmental Conditions During Monitoring : Min. Temp.: 8.1°C Max. Temp.: 28.5°C Min. RH: 31% Max. RH: 99%

Sample ID No	:	CPL/AAQ/DEC-21/290
Location of Sampling	:	Near Atithi Niwas
Date of Sampling	:	23.12.2021 – 24.12.2021
Sampling Period	:	0905 – 0857 Hrs
Time of Sampling	:	23.52 Hrs
Sample Received on	:	24.12.2021
Date of Test	:	24.12.2021 – 25.12.2021

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/m ³	IS : 5182 (PART – 24) 2019	60 (24 Hours)
2	PM 10	53	µg/m ³	IS : 5182 (PART – 23) 2006, RA 2017	100 (24 Hours)
3	Sulphur Dioxide (SO ₂)	05	µg/m ³	IS : 5182 (PART – 2) 2001, RA 2017	80 (24 Hours)
4	Nitrogen Dioxide (NO ₂)	21	µg/m ³	IS : 5182 (PART – 6) 2006, RA 2017	80 (24 Hours)
5	Ammonia (NH ₃)	< 20	µg/m ³	IS : 5182 (PART – 25) 2018	400 (24 Hours)
6	Ozone (O ₃)	< 20	µg/m ³	IS – 5182 (PART – 9) 1974, RA 2019	180 (1 Hour)

P. Sasani
Test Done By

[Signature]
Verified By



[Signature]
Authorized Signatory
Subhanga Praharaj
Managing Director/QM

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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/IR/57

REPORT NO: CPL/R/AAQ/DEC-21/37N

REPORT ISSUE DATE: 30.12.2021

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 (Part - 2), (Part - 6) & (Part - 11), EN 12341

Environmental Conditions During Monitoring : Min. Temp.: 8.1°C Max. Temp.: 28.5°C Min. RH: 31% Max. RH: 99%

Sample ID No	:	CPL/AAQ/DEC-21/290
Location of Sampling	:	Near Atithi Niwas
Date of Sampling	:	23.12.2021 - 24.12.2021
Sampling Period	:	0905 - 0857 Hrs
Time of Sampling	:	23.52 Hrs
Sample Received on	:	24.12.2021
Date of Test	:	24.12.2021 - 25.12.2021

SI 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/m ³	IS : 5182 (PART - 22) 2004, RA 2019	1 (24 Hours)
2	Arsenic (As)	< 0.2	ng/m ³	CPL/SOP/01/As, Issue No: 02, dtd.: 23.10.2017	6 (Annual)
3	Nickel (Ni)	< 12	ng/m ³	IS : 5182 (PART - 26) 2020	20 (Annual)
4	Carbon Monoxide (CO)	< 0.1	mg/m ³	Electro-chemical Sensor Based Digital Monitor	4 (1 Hour)
5	Benzene (C ₆ H ₆)	< 0.5	µg/m ³	IS : 5182 (PART - 11) 2006, RA 2017	5 (Annual)
6	Benzo(a)pyrene Particulate Phase only	< 0.1	ng/m ³	IS : 5182 (PART - 12) 2004, RA 2014	1 (Annual)

P. Sabeni
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