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SHREE JAIPUR CEMENT PLANT

(A UNIT OF SHREE CEMENT LTD.)

5KM STONE, MAHLA-JOBNER ROAD
VILLAGE-ASALPUR, TEHSIL-PHULERA, DISTT.-JAIPUR-303 331



SCL/SJCP/ENV/34/2019-20/

Date:- 27/05/2019
Speed Post

To,

The Member Secretary,
SEIAA Rajasthan
4, Institutional Area, Jhalana Doongri,
Jaipur-302004

Sub: - Regarding half yearly compliance report of the Environment Clearance Granted to Clinker Grinding Unit of Shree Cement Ltd. situated Near Village - Dehra - Asalpur, Tehsil - Phulera, District - Jaipur, (Rajasthan).


Ref: - Environmental Clearance Letter No. F I (4)/SEIAA/SEAC-Raj/Sectt/Project/Cat 3(b) B1 (229)/09-10 dated 30th April 2010.

Dear Sir,

With reference to the above subject matter, we are submitting herewith point wise compliance of above environmental clearance letter **for the period from Oct-18 to Mar-2019.**

This is for your kind information please,

Thanking you,
Yours faithfully,
For Shree Cement Ltd.


(Arun Agarwal)
G.M. (Unit Incharge)

Copy to:-

1. Secretary, Ministry of Environment and Forest, Govt. of India, Paryavaran Bhavan, CGO Complex, Lodhi Road, New Delhi,
2. Member Secretary, Rajasthan State Pollution Control Board, 4, Institutional Area, Jhalana Doongri, Jaipur.
3. Member Secretary, SEAC Rajasthan, 4, Institutional Area, Jhalana Doongri, Jaipur.
4. The CCF, Regional Office, Ministry of Environment & Forests, RO(CZ), Kendriya Bhawan, 5th Floor, Sector 'H', Aliganj, Lucknow-226 020
5. IA- Division, Monitoring Cell, MoEF, Paryavaran Bhavan, CGO Complex, Lodhi Road, New Delhi-110003,

Regd. Office & Works

Bangur Nagar, Post Box No. 33, Beawar 305 901, Raj. Phone : 01462 228101-6, Fax : 01462 228117 / 119

Page 1 of 7

JAIPUR OFFICE : SB-167, Infront of Rajasthan University Main Gate, JLN Marg, Jaipur-302018
Phone : 0141 2382340, 2382199, 2384237, Fax : 0141-2381091, Email : scljpr_jp1@sancharnet.in

NEW DELHI OFFICE : 122-123, Hans Bhawan, 1 Bhadurshah Zafar Marg, New Delhi 110 002
Phone : 011 23370828, 23379218, 23370776, Fax : 011 23370499, Email : scldel@ndf.vsnl.net.in

CORP. OFFICE : 21, Strand Road, Kolkata 700 001 Phone : 033 22209601-5 Fax : 033 22434226 Email : scl@cal2.vsnl.net.in

SHREE CEMENT LIMITED

Village-Dehra-Asalpur, Tehsil – Phulera, District- Jaipur, (Rajasthan)
COMPLIANCE STATUS OF ENVIRONMENT CLEARANCE LETTER

NO. : F I (4)/SEIAA/SEAC-Raj/Sectt/Project/Cat 3(b) B1 (229)/09-10 Dated – 30th April 2010.

PERIOD OF COMPLIANCE: Oct-18 to Mar-19

S. No.	SPECIFIC CONDITIONS	COMPLIANCE STATUS															
i	The production capacity of the industry for Cement (Clinker Grinding) shall not exceed 4.00 million tones/ year.	Agreed, last three year cement production are as below <table><tr><th>FY</th><th>Cement Production MT</th></tr><tr><td>2016-17</td><td>778333</td></tr><tr><td>2017-18</td><td>831166</td></tr><tr><td>2018-19</td><td>1063105</td></tr></table>	FY	Cement Production MT	2016-17	778333	2017-18	831166	2018-19	1063105							
FY	Cement Production MT																
2016-17	778333																
2017-18	831166																
2018-19	1063105																
ii	No water shall be consumed in the processing and no waste water shall be generated.	Cement grinding is dry process therefore water is not used in process. Unit complying with zero liquid discharge (ZLD).															
iii	The PP shall be achieve the stack emission standards and ambient air standards as notified under E.P. Rules. 1986 (including CREP guidelines)	CREP recommendations related to grinding unit are being complied. <table><tr><th>S. No</th><th>CREP CONDITION</th><th>ACTION PLANNED</th></tr><tr><td>1</td><td>The new cement kiln to be accorded NOC/ Environmental Clearance w.e.f 1/4/03 will meet the limit of 50 mg/Nm3 for particulate matter emission</td><td>Complying with new emission norms i.e. PM <30 mg/Nm3.</td></tr><tr><td>2</td><td>The cement industries will control fugitive emission from all raw material and product storage and transfer points by December 2003. However, the National Task Force will decide the feasibility for the control of fugitive emission from limestone and coal storage areas. The NTF shall submit its recommendations within months</td><td>Bag filters have been installed at various locations of material transfer points. Fly ash and clinker is stored in silos. All conveyor belts are covered.</td></tr><tr><td>3</td><td>Industries will submit the target date to enhance the utilization waste material by April 2003</td><td>Not applicable</td></tr><tr><td>4</td><td>NCBM will carry out a study on hazardous waste utilization in cement kiln by December 2003</td><td>Not applicable</td></tr></table>	S. No	CREP CONDITION	ACTION PLANNED	1	The new cement kiln to be accorded NOC/ Environmental Clearance w.e.f 1/4/03 will meet the limit of 50 mg/Nm3 for particulate matter emission	Complying with new emission norms i.e. PM <30 mg/Nm3.	2	The cement industries will control fugitive emission from all raw material and product storage and transfer points by December 2003. However, the National Task Force will decide the feasibility for the control of fugitive emission from limestone and coal storage areas. The NTF shall submit its recommendations within months	Bag filters have been installed at various locations of material transfer points. Fly ash and clinker is stored in silos. All conveyor belts are covered.	3	Industries will submit the target date to enhance the utilization waste material by April 2003	Not applicable	4	NCBM will carry out a study on hazardous waste utilization in cement kiln by December 2003	Not applicable
S. No	CREP CONDITION	ACTION PLANNED															
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2	The cement industries will control fugitive emission from all raw material and product storage and transfer points by December 2003. However, the National Task Force will decide the feasibility for the control of fugitive emission from limestone and coal storage areas. The NTF shall submit its recommendations within months	Bag filters have been installed at various locations of material transfer points. Fly ash and clinker is stored in silos. All conveyor belts are covered.															
3	Industries will submit the target date to enhance the utilization waste material by April 2003	Not applicable															
4	NCBM will carry out a study on hazardous waste utilization in cement kiln by December 2003	Not applicable															

		5	Cement industries will carry out feasible study and submit target dates to CPCB co-generation of power by July-2003	Not applicable
iv	The height of the stack for disbursement of the process emissions shall not be less than 30 M or as per the CPCB norms from ground level, whichever is greater.		Stack height attached with cement mill bag house is 55 mtrs from ground level.	
v	The PP shall operate the unit with prior Consent to Establish and Consent to Operate under the provisions of Water (Prevention & Control of Pollution) Act'74 and Air (Prevention & Control of Pollution) Act'81.		Consent to establish has been obtained vide letter no. F(Tech)/Jaipur (Phulera)/19(1)2010-2011/1050-1052 dt 27/05/2010 and Consent to operate vide letter no. F(Tech)/Jaipur (Phulera)/19(1)/2010-2011 /7928-7930 Dt 26/10/2016.	
vi	The particulate matter and gaseous emissions (SO _x , NO _x , CO, CO ₂ , etc) from various processes/ units/storages shall conform to the standards prescribed by the RPCB/CPCB or under the Environment (Protection) Rules'86 from time to time.		Dust collectors are installed at all material transfer points to achieve the emission level of PM< 30 mg/Nm ³ . Gaseous parameter e.g. SO _x , NO _x , CO and CO ₂ not applicable for cement grinding units.	
vii	At no time, the emissions shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the units, the unit shall immediately put off operation and shall not restart until the control measures are rectified to achieve the desired efficiency.		Dust collector has been installed at the stack of cement mill to control the particulate matter emission and Interlocking facility has been provided in the pollution control system with the cement mill.	
viii	Continuous stack monitoring facilities to monitor gaseous emissions from all the stacks shall be provided to control emissions within 50 mg/NM ³ by installing adequate air pollution control system like bag filters, dust collectors etc. 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(s) is shut down automatically.		Continuous stack monitoring facilities has been installed at cement mill stack to monitor particulate matter emission level & data of same are being uploaded at RSPCB and CPCB server on 24 x 7 basis. Interlocking facility has been provided in the pollution control system with the cement mill.	
ix	The PP shall install adequate dust collection and extraction system to control fugitive dust emissions at loading/unloading points and at all the transfer points. For source emission control, bag filters shall be provided on clinker hopper, cement silo, fly ash silo, elevator, packer, cement transport equipment etc which will also contribute to reduce fugitive emissions. The fugitive emissions during loading and unloading shall be suitably controlled. Fugitive dust emissions from ball mill and storage areas shall be collected in bag filters and recycled back to the process. Storage of raw material shall be in closed roof sheds. Water sprinkling arrangement shall be made in the raw material stock yard and cement bag loading areas.		Bag filters have been installed at various material transfer points and unloading hoppers to control the fugitive emission. Dust collected from pollution control equipment is recycled back into the process. Fly ash and clinker are stored in silos. All conveyor belts are covered. All roads, truck parking area and cement bag loading areas are concreted. Road cleaning is being carried out by vacuum sweeping machine.	

x	Ambient air quality monitoring stations shall be set up in consultation with RPCB in the down wind direction as well as where maximum ground level concentration of PM10 & PM2.5, SOx, NOx, CO, CO ₂ , are anticipated.	03 nos ambient air quality monitoring stations have been installed. Monitoring results is attached herewith as Annexure – 1 .
xi	The project proponent shall submit an Air pollution control plan indicating various sources of air pollution, their emission rate, the control established and details of controls etc.	Details have been incorporated in project report and submitted to the SEIAA during obtainment of EC.
xii	Portholes and sampling facilities shall be provided for the stacks emissions monitoring as per the Central Pollution Control Board guidelines. Stack emissions shall be monitored in consultation with RPCB	Complied with, monitoring results is attached herewith as Annexure – 2 .
xiii	Data on ambient air quality and stack emissions shall be submitted to RPCB once in six months carried out by MOEF/NABL/CPCB/Government approved lab.	Complying with, ambient air quality monitoring report and stack emission monitoring are being carried out by the NABL approved lab and reports are submitting to the RSPCB on quarterly basis. Copies of same are enclosed as Annexure – 3 .
xiv	Fugitive dust emissions shall be controlled as per relevant guidelines issued by CPCB.	Bag filters have been provided at various storage, material transfer points and loading & unloading hoppers to control fugitive emission.
xv	The total requirement shall not exceed 300 KLD (150 KLD for domestic use + 150 KLD for industrial use) of which 200 KLD is during Ist Phase & 100KLD during IInd Phase as mentioned in the project report. Ground water extraction shall not be done without prior permission of CGWA.	NOC from CGWA has been obtained for the withdrawal of ground water of 300 KLD water vide letter no. 21-4(428)/WR/CGWA/2010-816 on dated 14 may 2010 & applied for renewal on dated 18 August 2014.
xvi	The PP shall provide separate drainage and outlets for the management of storm water.	Separate drainage and outlets for the management of storm water has been constructed. Storm water drains are connected with ground water recharge pit and injection wells. Sewage water drainages are connected with STP.
xvii	Handling, manufacture, storage and transportation of hazardous chemicals shall be in accordance with the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 (amended till date).	No hazardous waste generated from the process. Used oil generated as hazardous waste which is storage in covered shed and sale to CPCB authorized recycler.
xviii	The PP shall take adequate measures for the control of noise shall be taken so as to keep the noise levels below 85dBA in the work environment. Persons working near the machines shall be provided with well-designed ear muffs/plugs and other personnel protective equipments. The Project Proponent shall submit a Silicosis Management Plan to RPCB prior to commencement of work.	Noise level within the plant area is < 85 dB(A). PPEs e.g. ear plug/ muffs are provided to persons working in high noise area. Quartz like materials which cause Silicosis related diseases are not used.
xix	Suitable alarm system and standard procedure for transmitting the information on the occurrence of an accident to the proper focal point shall be established	We have installed smoke detectors, fire alarm & Cyrene for information to all so as to assemble at different pre-identified locations in case of emergency.

xx	Efforts shall be made to increase green belt all around the premises. Native plant species shall be selected for these propose in consultation with the local Forest department. A green belt development plan be prepared and implemented so as to cover at least 33% area of the plot size.	We have developed plantation in 9.8 hectare out of 29.16 hectare of total plant area i.e. 34% of total plant area. During FY 2018-19 total 946 nos of sapling planted for density increase.
xxi	A qualified person in the field of environment or separate Environmental Management Cell to be established to implement and carry out various functions is set up under the control of a Senior Executive who will report directly to the head of the project	A separate environmental management cell with full fledged laboratory facilities has been setup to carry out various management and monitoring functions.
xxii	The funds earmarked for the environmental protection measures shall be kept in separate account and shall not be diverted for other purposes and year wise expenditure shall be reported to RPCB under the rules prescribed for environmental audit.	Year wise recurring expenditure of EMP is being submitted to the Officials of Regional Office regularly. Expenditure incurred for the year of 2018-19 (April-2018 to Mar-2019) is 90.52 (cost in lac)
xxiii	implementation of the environmental safeguards like fire fighting, water harvesting etc. along with socio-economic measures like group insurance, free medical facilities, ESI/EPF facilities to the employees as envisaged under the Environmental Management Plan; details are to be submitted to the Rajasthan Pollution Control Board, at the time of applying for consent to establish/operate.	Separate safety department has been established to take care of emergency situation. Fire fighting arrangements have been made at all required locations. Group medical policy and EPF has been adopted.
xxiv	The PP shall ensure that, the EC letter as well as the status of compliance of EC conditions and the monitoring data are placed on company's website and displayed at the project site.	EC compliance status and monitoring data placed at the company's website and project site regularly.
xxv	The PP shall ensure that, in order to take up voluntary CSR related activities, a sum of Rs.500.00 lakh is provided and spent initially and a sum of RS 50.00 Lakhs annually. The books of accounts shall reflect the expenditure made in this regard. Item wise break up in this regard shall be submitted to RPCB at the time of applying for CTE	CSR activities are ongoing process and are being carried out in consultation with local Panchayat. Company engage in extensive CSR activity as per need of local area.
xxvi	Six monthly compliance status reports on project along with implementation of environmental measures shall be submitted to MoEF, Regional Office, Lucknow and Rajasthan State Pollution Control Board.	Agreed, we are submitting herewith six monthly compliance of Environment Clearance.
xxvii	The SEIAA, Rajasthan reserves the right to add new conditions, modify/annual any of the stipulated conditions and/or to revoke the clearance if implementation of any of the condition stipulated by SEIAA, Rajasthan or any other competent authorities is not satisfactory.	Its SEIAA, Rajasthan jurisdiction.

Monthly Avg. Ambient Air Quality Monitoring Report for the period of Oct. 2018 to Mar. 2019 (All Values in $\mu\text{g}/\text{m}^3$)

Annexure - I

S. No	Location →	Plant boundary towards CCR				Plant boundary towards Electrical switch yard				Plant boundary towards Rain Water collection Pond			
	Month ↓	PM 2.5	PM 10	SO ₂	NO _x	PM 2.5	PM 10	SO ₂	NO _x	PM 2.5	PM 10	SO ₂	NO _x
1	Oct-18	30	50	6	9	35	54	7	11	27	49	7	11
2	Nov-18	33	48	6	8	33	51	7	9	30	51	8	9
3	Dec-18	32	52	7	9	37	57	6	10	33	52	6	12
4	Jan-19	31	53	7	9	33	55	7	9	30	48	6	12
5	Feb-19	32	51	8	10	36	52	9	10	33	53	8	9
6	Mar-19	34	54	6	9	38	57	8	13	35	52	9	10
Average		32.0	51.3	6.7	9.0	35.3	54.3	7.3	10.3	31.3	50.8	7.3	10.5

Annexure - II

Monthly Stack Emission Level Monitoring Report for the period of Oct. 2018 to Mar. 2019

S. No.	Month & Year	Particulate Matter Emission Level from Stack attached with Bag House of Cement Mill (mg/Nm^3)	Average Opacity Meter Reading (mg/Nm^3)
1	Oct-18	15	13.5
2	Nov-18	12	14.9
3	Dec-18	16	15.6
4	Jan-19	15	14.3
5	Feb-19	14	12.5
6	Mar-19	16	14.3
Average		15	14



Office & Laboratory : 32/41, South Side of G.T. Road, UPSID, Industrial Area, Ghaziabad - 201 009 (Distt-NCR), INDIA
 Contact No : 9711159210, 9711159427; SKIS-Whatsapp: No: 9711163422 E-mail: ekopro@ekoproengineers@gmail.com website: www.ekopro.in

**TEST REPORT****Ambient Air Quality Monitoring**

Test Report No.: EK0/EV-AA/112/281218

Issue Date : 31/12/2018

Issued To : M/s Shree Cement Ltd. (Unit - Jaipur Plant)
 Near village - Dehra-Asalpur
 Tehsil- Phulera
 District - Jaipur (Rajasthan)

Sample Description : Ambient Air Quality Monitoring
 Sample Drawn on : 26/12/2018 To 27/12/2018
 Sample Drawn by : EPEPL(Mr. K.K. Mishra)
 Sample Received on : 28/12/2018
 Sampling Location : Plant Boundary Towards Electrical Switch Yard
 Sampling Plan & Procedure : SOP-AAQ/15
 Analysis Duration : 28/12/2018 To 31/12/2018
 Sampling Time : 24.0 Hrs.
 Ambient Temperature (deg °C) : 18.0
 Average Flow Rate of SPM (m³/min) : 1.1
 Average Flow Rate of Gases (lpm.) : 1.0
 Weather Conditions : Clear
 Remark (if any) : NA

RESULTS

S.No.	PARAMETER	Test Methods	Results	Units	Limits as per EPA*
1	Particulate Matter (PM10)	IS:5182 (P-23)	58.1	µg/m³	100.0
2	Particulate Matter (PM2.5)	Eko/Chem/SOP/AAQ-01	37.9	µg/m³	60.0
3	Sulphur dioxide (as SO2)	IS:5182 (P-2)	6.28	µg/m³	80.0
4	Nitrogen Dioxide (as NO2)	IS:5182 (P-6)	10.2	µg/m³	80.0
5	Carbon Monoxide (as CO)	IS:5182 (P-10)	<1.15	mg/m³	4.0





Office & Laboratory : 32/41, South Side of G.T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Delhi-NCR), INDIA
 Contact No. : 9711168210, 9711168420, SMS/WhatsApp No. : 971163122, E-mail : info@ekopro.in, ekoproengineers@gmail.com, website : www.ekopro.in

**TEST REPORT****Ambient Air Quality Monitoring**

Test Report No. : EKO/EV-AA/113/281218

Issue Date : 31/12/2018

Issued To

: M/s Shree Cement Ltd. (Unit - Jaipur Plant)
 Near village - Dehra-Asalpur
 Tehsil- Phulera
 District - Jaipur (Rajasthan)

Sample Description : Ambient Air Quality Monitoring
 Sample Drawn on : 25/12/2018 To 26/12/2018
 Sample Drawn by : EPEPL(Mr. K.K. Mishra)
 Sample Received on : 28/12/2018
 Sampling Location : Plant Boundary Towards Rain Water Collection Pond
 Sampling Plan & Procedure : SOP-AAQ/15
 Analysis Duration : 28/12/2018 To 31/12/2018
 Sampling Time : 24.0 Hrs.
 Ambient Temperature (deg °C) : 17.0
 Average Flow Rate of SPM (m³/min) : 1.1
 Average Flow Rate of Gases (lpm.) : 1.0
 Weather Conditions : Clear
 Remark (if any) : NA

RESULTS

S.No.	PARAMETER	Test Methods	Results	Units	Limits as per EPA*
1	Particulate Matter (PM10)	IS:5182 (P-23)	51.2	µg/m ³	100.0
2	Particulate Matter (PM2.5)	Eko/Chem/SOP/AAQ-01	32.4	µg/m ³	60.0
3	Sulphur dioxide (as SO ₂)	IS:5182 (P-2)	9.25	µg/m ³	80.0
4	Nitrogen Dioxide (as NO ₂)	IS:5182 (P-6)	12.1	µg/m ³	80.0
5	Carbon Monoxide (as CO)	IS:5182 (P-10)	<1.15	mg/m ³	4.0





EKO PRO ENGINEERS PVT. LTD.

Environmental Consultants and Analytical Laboratory
(An ISO 9001:2015 Certified Company)

Office & Laboratory : 22/41, South Side of D. T. Road, UPSIDC Industrial Area, Gandhinagar - 2011 009 (Delhi-NCR) INDIA
Contact No : 9711159210, 9711159423, SMS/WhatsApp No. : 9711159422, E-mail : amal@ekopro.in, ekoproengineers@gmail.com, website : www.ekopro.in

TEST REPORT

Stack Emission Analysis

Test Report No : EKO/EV-SE/113/281218

Issue Date : 02/01/2019

Issued To :

M/s Shree Cement Ltd. (Unit - Jaipur Plant)
Near Village - Dehra-Asalpur
Tehsil - Phulera
District - Jaipur (Rajasthan)

Sample Description	: Stack Emission
Sample Drawn on	: 27/12/2018
Sample Drawn By	: EPEPL (Mr. K.K. Mishra)
Sample Received on	: 28/12/2018
Time of Sampling (Minutes)	: 30.0
Sampling Plan & Procedure	: SOP-SE/09
Analysis Duration	: 28/12/2018 To 31/12/2018
Source of Emission	: Stack Attached To Cement Grinding Mill
Capacity	: -
Operating Load	: Normal
Normal Operation Schedule	: As per requirement
Type of Stack	: Metal/Circular
Diameter of Stack (meter)	: 2.0
Height of Stack from Ground Level (meter)	: 55.0
Height of Stack from Roof Level (meter)	: -
Height of Sampling Location (meter)	: 42.8 from Ground Level
Type of Fuel Used	: -
Fuel Consumed per Hour	: -
Ambient Temperature (deg.C)	: 17.0
Stack Temperature (deg.C)	: 84.0
Absolute Pressure (mmH ₂ O)	: 5.65
Average Velocity of Flue Emission (m/sec)	: 8.23
Average Flow Rate (lpm)	: 23.7
Control Measures (if any)	: Bag Filter
Remark (if any)	: NA

RESULTS

S.No.	PARAMETER	TEST METHOD	RESULT	RESULT (CEMS)	UNIT	SPECIFICATIONS
1	Particulate Matter (PM)	IS :11255 (P-1)	17.7	15.6	mg/Nm ³	30.0

Notes :

**** End of Report ****

- The results given above are related to the tested sample, for various parameters, as observed at the time of sampling. The customer asked for the above tests only.
- This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
- The test samples will be disposed off after two weeks from the date of issued of test report, unless until specified by the customer.
- Responsibility of the Laboratory is limited to the invoiced amount only.

For EKO PRO ENGINEERS PVT. LTD.
GANDHINAGAR
Authorized Signatory



Office & Laboratory : 4047, South Side of G. T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Distt-NCR) (NDA)
 Contact No. : 9711182715, 9711182407, 9810243870, 9711182402, Email : info@ekoproengineers.com, website : www.ekopro.com

**TEST REPORT****Ambient Air Quality Monitoring**

Test Report No. : EKO/EV-AA/101/280319

Issue Date : 30/03/2019

Issued To : M/s Shree Cement Ltd. (Unit - Jaipur Plant)
 Near village - Dehra-Asalpur
 Tehsil- Phulera
 District - Jaipur (Rajasthan)

Sample Description : Ambient Air Quality Monitoring
 Sample Drawn on : 26/03/2019 To 27/03/2019
 Sample Drawn by : EPEPL(Mr. K.K. Mishra)
 Sample Received on : 28/03/2019
 Sampling Location : Plant Boundary Towards CCR
 Sampling Plan & Procedure : SOP-AAQ/15
 Analysis Duration : 28/03/2019 To 30/03/2019
 Sampling Time : 24.0 Hrs.
 Ambient Temperature (deg °C) : 28.0
 Average Flow Rate of SPM (m³/min) : 1.1
 Average Flow Rate of Gases (lpm.) : 1.0
 Weather Conditions : Clear
 Remark (if any) : NA

RESULTS

S.No.	PARAMETER	Test Methods	Results	Units	Limits as per EPA*
1	Particulate Matter (PM10)	IS:5182 (P-23)	55.9	µg/m³	100.0
2	Particulate Matter (PM2.5)	Eko/Chem/SOP/AAQ-01	38.4	µg/m³	60.0
3	Sulphur dioxide (as SO2)	IS:5182 (P-2)	10.6	µg/m³	80.0
4	Nitrogen Dioxide (as NO2)	IS:5182 (P-6)	11.2	µg/m³	80.0
5	Carbon Monoxide (as CO)	IS:5182 (P-10)	<1.15	mg/m³	4.0





Office & Laboratory : 32/41, South side of G. T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Delhi-NCR) INDIA
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 Email : analyst@eko-pro.com / eko-pro@eko-pro.com / eko-pro@eko-pro.com / eko-pro@eko-pro.com / eko-pro@eko-pro.com / eko-pro@eko-pro.com / eko-pro@eko-pro.com / eko-pro@eko-pro.com / eko-pro@eko-pro.com / eko-pro@eko-pro.com
 Website : www.eko-pro.com

Ambient Air - Plant Boundary Towards CCR





Office & Laboratory : 52/41, South side of G. T. Road, UPSIDC Industrial Area, Ghosodad - 201 001 (Distt-NCR) INDIA
 Contact No. : 91110219 911100422, 911100423, 911100424, 911100425, Email : info@eko-pro.com, eko@eko-pro.com, eko@eko-pro.com, Website : www.eko-pro.com

**TEST REPORT****Ambient Air Quality Monitoring**

Test Report No. : EKO/EV-AA/102/280319

Issue Date : 30/03/2019

Issued To : M/s Shree Cement Ltd. (Unit - Jaipur Plant)
 Near village - Dehra-Asalpur
 Tehsil- Phulera
 District - Jaipur (Rajasthan)

Sample Description : Ambient Air Quality Monitoring
 Sample Drawn on : 26/03/2019 To 27/03/2019
 Sample Drawn by : EPEPL(Mr. K.K. Mishra)
 Sample Received on : 28/03/2019
 Sampling Location : Plant Boundary Towards Electrical Switch Yard
 Sampling Plan & Procedure : SOP-AAQ/15
 Analysis Duration : 28/03/2019 To 30/03/2019
 Sampling Time : 24.0 Hrs.
 Ambient Temperature (deg °C) : 28.0
 Average Flow Rate of SPM (m³/min) : 1.1
 Average Flow Rate of Gases (lpm.) : 1.0
 Weather Conditions : Clear
 Remark (if any) : NA

RESULTS

S.No.	PARAMETER	Test Methods	Results	Units	Limits as per EPA*
1	Particulate Matter (PM10)	IS:5182 (P-23)	59.7	µg/m ³	100.0
2	Particulate Matter (PM2.5)	Eko/Chem/SOP/AAQ-01	39.4	µg/m ³	60.0
3	Sulphur dioxide (as SO ₂)	IS:5182 (P-2)	8.47	µg/m ³	80.0
4	Nitrogen Dioxide (as NO ₂)	IS:5182 (P-6)	12.5	µg/m ³	80.0
5	Carbon Monoxide (as CO)	IS:5182 (P-10)	<1.15	mg/m ³	4.0





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**TEST REPORT****Ambient Air Quality Monitoring**

Test Report No. : EKO/EV-AA/103/280319

Issue Date : 30/03/2019

Issued To : M/s Shree Cement Ltd. (Unit - Jaipur Plant)
 Near village - Dehra-Asaipur
 Tehsil- Phulera
 District - Jaipur (Rajasthan)

Sample Description : Ambient Air Quality Monitoring
 Sample Drawn on : 26/03/2019 To 27/03/2019
 Sample Drawn by : EPEPL(Mr. K.K. Mishra)
 Sample Received on : 28/03/2019
 Sampling Location : Plant Boundary Towards Rain Water Collection Pond
 Sampling Plan & Procedure : SOP-AAQ/15
 Analysis Duration : 28/03/2019 To 30/03/2019
 Sampling Time : 24.0 Hrs.
 Ambient Temperature (deg °C) : 28.0
 Average Flow Rate of SPM (m³/min) : 1.1
 Average Flow Rate of Gases (lpm.) : 1.0
 Weather Conditions : Clear
 Remark (if any) : NA

RESULTS

S.No.	PARAMETER	Test Methods	Results	Units	Limits as per EPA*
1	Particulate Matter (PM10)	IS:5182 (P-23)	54.2	µg/m ³	100.0
2	Particulate Matter (PM2.5)	Eko/Chem/SOP/AAQ-01	34.8	µg/m ³	60.0
3	Sulphur dioxide (as SO ₂)	IS:5182 (P-2)	10.4	µg/m ³	80.0
4	Nitrogen Dioxide (as NO ₂)	IS:5182 (P-6)	11.0	µg/m ³	80.0
5	Carbon Monoxide (as CO)	IS:5182 (P-10)	<1.15	mg/m ³	4.0



EKO PRO



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Ambient Air - Plant Boundary Toward Rain Water Collection Pond



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TEST REPORT

Stack Emission Analysis

Test Report No : EKO/EV-SE/102/280319

Issue Date : 30/03/2019

Issued To

: M/s Shree Cement Ltd.(Unit - Jaipur Plant)
Near Village - Dehra-Asalpur
Tehsil - Phulera
District - Jaipur (Rajasthan)

Sample Description	: Stack Emission
Sample Drawn on	: 27/03/2019
Sample Drawn By	: EPEPL (Mr. K.K. Mishra)
Sample Received on	: 28/03/2019
Time of Sampling (Minutes)	: 30.0
Sampling Plan & Procedure	: SOP-SE/09
Analysis Duration	: 28/03/2019 To 30/03/2019
Source of Emission	: Stack Attached To Cement Grinding Mill
Capacity	: -
Operating Load	: Normal
Normal Operation Schedule	: As per requirement
Type of Stack	: Metal/Circular
Diameter of Stack (meter)	: 2.0
Height of Stack from Ground Level (meter)	: 55.0
Height of Stack from Roof Level (meter)	: -
Height of Sampling Location (meter)	: 42.8 from Ground Level
Type of Fuel Used	: -
Fuel Consumed per Hour	: -
Ambient Temperature (deg.C)	: 28.0
Stack Temperature (deg.C)	: 90.0
Absolute Pressure (mmH ₂ O)	: 5.98
Average Velocity of Flue Emission (m/sec)	: 7.96
Average Flow Rate (lpm)	: 24.8
Control Measures (if any)	: Bag Filter
Remark (if any)	: NA

RESULTS

S.No.	PARAMETER	TEST METHOD	RESULT	RESULT (CEMS)	UNIT	SPECIFICATIONS
1	Particulate Matter (PM)	IS :11255 (P-1)	16.1	14.3	mg/Nm ³	30.0

Notes:

* * End of Report * *

1. The results given above are related to the tested sample, for various parameters, as observed at the time of sampling. The customer asked for the above tests only.
2. This test report will not be generated again, either wholly or in part, without prior written permission of the Laboratory.
3. The test samples will be disposed off after two weeks from the date of issued of test report, unless until specified by the customer.
4. Responsibility of the Laboratory is limited to the invoiced amount only.

For EKO PRO ENGINEERS PVT. LTD.
GHAZIABAD
Authorized Signatory

Office & Laboratory: B2/41, Sector S-08 of G.T. Road, UPSIDC Industrial Area, Ghaziabad - 201 009 (Delhi-NCR), INDIA.
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26°55'53", 75°23'42", 434.5m

26°55'53", 75°23'42", 434.5m