



To,
Ministry of Environment and Forests,
BANGLOW NO. A-2, SHYAMLI CALONY,
RANCHI-834002, JHARKHAND
PH. 0651-2410007, 2410002

DATED 20.06.2016

Our Ref : ECO/BIHAR/EMR/20062016/9

Sub : Environmental Monitoring Results of M/s. Eco Cements Limited, Bhabhua for the period of OCT 2015 TO MARCH 2016

Dear Sir,

This refers to above mentioned subject. In this matter, please find attached Environmental Monitoring results of Ambient Air Quality, Stack Emission and Fugitive Emission of M/s. Eco Cements Limited, Bhabhua for the period of OCT 2015 TO MARCH 2016

Kindly acknowledge the receipt and oblige.

Thanking you in anticipation,
For Eco Cements Limited

Rajiv Saini
Authorized Sign

ECO CEMENTS LTD.

Auth. Signatory

Encl.

1. Environmental Monitoring results of M/s. Eco Cements Limited, Bhabhua for the period of OCT 2015 TO MARCH 2016

Copy to.

1. The Chairman,
Bihar State Pollution Control Board,
Beltron Bhavan, 2nd Floor, Lal Bahadur Shastri Nagar,
Patna- 800023
2. The Chairman, Central Pollution Control Board,
Parivesh Bhawan, CBD-cum-Office Complex,
East Arjun Nagar, Delhi - 110 032

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1st FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH - 700013
FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

Ambient Air Quality Monitoring Report (All Values in ug/m3)													
Year: 2015 - 2016(OCT 2015 TO MARCH 2016.)													
S. No.	Location ---->	Near Main Gate			Near CCR			Near Canteen			Near Gypsum & Clinker Storage		
	Month	PM ₁₀	SO ₂	NO ₂	PM ₁₀	SO ₂	NO ₂	PM ₁₀	SO ₂	NO ₂	PM ₁₀	SO ₂	NO ₂
1	Oct-15	74.22	13.1	10	71.25	15.26	9.8	73.12	12.9	11.5	69.38	12.8	12.2
2	Nov-15	75.96	12.8	9.8	72.58	13.9	10.2	75	14.6	12.5	76.35	12.5	12.5
3	Dec-15	70.35	14.8	10.9	68.59	12.2	11.2	77.84	16.1	12.3	69.25	15.1	10.8
4	Jan-16	64.73	11.2	11.8	85.15	12.76	11.7	79.58	12.8	11.2	77.41	12.7	10.3
5	Feb-16	73.51	10.8	11.5	79.71	9.8	11.8	74.4	10.3	11.5	80.42	11.9	10.3
6	Mar-16	72.3	24.3	33.7	85.4	25.5	35.9	73.7	30.5	43.1	80.3	33.9	48.3
Average		71.85	14.5	14.62	77.11	14.9	15.1	75.61	16.2	17.02	75.52	16.48	17.4

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ECO CEMENTS LIMITED

Corp. Office : 72, Jawaharnagar Extn, Bhelupur, Varanasi-221010. Telefax – 0542-2277074

Zonal Office : HIG-195, SaileshreeVihar, Chandrasekharpur, Bhubaneswar, Orissa, Email - enquiry@ecocem.in
: 1644, Beriya Road, Kulharia,Durguati, Bhabua(Kamur), Bihar- 821105.

Stack Emission Level Monitoring Report for the period OCT 2015 TO MARCH 2016 All Values in mg/m ³								
Sr. No.	Month & Year	Particulate Matter Emission (mg/Nm ³)						Standard Limit of Particulate Matter Emission
		Stack Attached with Bag House of Cement Mill	Stack Attached with Bag House of flyash unloader	Stack Attached with Bag House of Clinker & gypsum unloader	Stack Attached with Bag House of gypsum & clinker feeding	Stack Attached with DG 500 KVA	Stack Attached with DG 125 KVA	
1	Oct-15	36.47	40.1	35.35	28	28.15	34.87	50 mg/Nm ³
2	Nov-15	29.15	41.3	44.27	41.75	48	48.15	
3	Dec-15	41.49	0	30.94	40.44	41.62	42.74	
4	Jan-16	37.9	42.23	30	38.77	41.27	42.37	
5	Feb-16	44.44	0	25.91	37.94	40.11	40.19	
6	Mar-16	46.2	43.7	41.3	37.2	44.8	38.6	
Average Values		39.28	27.89	34.63	37.35	40.66	41.15	

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Ambient Noise level Monitoring Report From OCT 2015 TO MARCH 2016 dB(A) TIME WEIGHTED AVERAGE (TWA) OF NOISE LEVEL IN dB(A)							
S. No.	Location ---->	Plant boundary near Main gate	Plant boundary near CCR	Plant boundary near Canteen	Plant boundary near Gypsum storage	Plant boundary near clinker storage	Prescribed Standard Limit (dB(A)
1	Oct-15	61.6	61.9	62.4	61.8	62.9	75dB(A) in day & 70 dB(A) in night
2	Nov-15	69.1	58.4	64.6	58.8	60.2	
3	Dec-15	57.6	60.8	64.3	63.9	64.8	
4	Jan-16	62.6	60.2	63.9	61.3	60.8	
5	Feb-16	60.2	63.4	63	62	60.5	
6	Mar-16	67.8	70.2	66.4	68.6	62.4	
Average Values		63.15	62.48	64.10	62.73	61.93	

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Fugitive Dust Emission Level Monitoring Report for the period OCT 2015 TO MARCH 2016						
Concentration of Total Dust (All Values in mg/m ³)						
Sl.No.	Month	Mill Section Ground Floor	Mill Section 1st Floor	Mill Section 2nd Floor	South Side of Mill Section	North side of Mill Section
1	Oct-15	4.8	3.9	4.1	3.7	2.4
2	Nov-15	3.9	4.1	2.8	4.7	3.1
3	Dec-15	4.25	3.1	3.8	4	3.2
4	Jan-16	3.8	2.9	3.9	3.6	2.2
5	Feb-16	2.8	3	2.4	3.7	2.9
6	Mar-16	8.21	7.64	3.22	6.54	5.48
Average		4.63	4.11	3.37	4.37	3.21

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Regd. Office :
6D Extn. ; (Chatterjee Lane)
Gardanibagh
PATNA - 800 001 (Bihar)



Laboratory Address :-
01ST FLOOR, RAJHANS NIKETAN,
NEAR CANAL, RUKUNPURA,
BAILEY ROAD,
PATNA - 800 014 (BIHAR)



SHIVA TEST HOUSE

Tel. : 0612 - 2247538/ 2240752 ; TeleFax : 0612 - 2590705
E.mail.: sthpatna1@yahoo.co.in



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BY DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref.No. ECL/TR/16-17/104(f) Dt : 23.04.2016 Your PO No. ECO/BHR/SHIVA TEST HOUSE /W.O./RS/2016 Dt : 19.04.2016				
[a]	Name and address of the Customer	ECO Cement Ltd. Vill.: Mahmoodganj At : Kulharia Durgawati Dist.: Bhabua (Kaimur)		
[b]	Report to be submitted to	Director		
[c]	Details of Sample	Monitoring of Stack Emission		
[d]	Sample Collected by	SHIVA TEST HOUSE on 20.03.16		
[e]	No. & Type of Container	Thimble & Glass Impinger		
[f]	Items required to be tested	As per request		
[g]	Whether any specific Method of Test has been suggested by the party	No		
[h]	Date of receiving the sample	21.03.16		
Parameters		Method of Test	Results	
1.	Stack Connected to		Bag House attached with Cement Mill	
2.	Height of Stack (as reported)		33 m.	
3.	Dia of Stack at Top (as reported)		1.2 m.	
4.	Draft		ID Fan	
5.	Material of Construction		M.S.	
6.	Ambient Temperature, °C		28.0	
7.	Flue Gas Temperature, °C		44.0	
8.	Velocity, m/sec.		IS 11255 (Part-3)	10.2
9.	Volumetric Flow Rate, NM ³ /hr.			39020.41
10.	Sampling Point			21 m.
		Concentration (mg / NM ³)	Limit as per E (P) Rules	
11.	Particulate Matter (P.M.)	IS 11255 (Part-1)	46.2 50.0 mg / NM ³	
12.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	Not Detectable Not Specified	
13.	Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	13.8 Not Specified	



Authorized Signatory
Quality Manager / Dy. Quality Manager

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TEST REPORT

Ref.No. ECL/TR/16-17/104(e) Dt : 23.04.2016 Your PO No. ECO/BHR/SHIVA TEST HOUSE /W.O./RS/2016 Dt : 19.04.2016				
[a] Name and address of the Customer	ECO Cement Ltd. Vill.: Mahmoodganj At : Kulharia Durgawati Dist.: Bhabua (Kaimur)			
[b] Report to be submitted to	Director			
[c] Details of Sample	Monitoring of Stack Emission			
[d] Sample Collected by	SHIVA TEST HOUSE on 20.03.16			
[e] No. & Type of Container	Thimble & Glass Impinger			
[f] Items required to be tested	As per request			
[g] Whether any specific Method of Test has been suggested by the party	No			
[h] Date of receiving the sample	21.03.16			
Parameters	Method of Test	Results		
1. Stack Connected to		Bag House of flyash unloader		
2. Height of Stack (as reported)		30 m.		
3. Dia of Stack at Top (as reported)		1.05 m.		
4. Draft		ID Fan		
5. Material of Construction		M.S.		
6. Ambient Temperature, °C		28.0		
7. Flue Gas Temperature, °C		58.0		
8. Velocity, m/sec.		IS 11255 (Part-3)	9.6	
9. Volumetric Flow Rate, NM ³ /hr.			26928.3	
10. Sampling Point			14 m.	
		Concentration (mg / NM³)	Limit as per E (P) Rules	
11. Particulate Matter (P.M.)	IS 11255 (Part-1)	43.7	50.0 mg / NM ³	
12. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	Not Detectable	Not Specified	
13. Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	10.2	Not Specified	



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Quality Manager / Dy. Quality Manager

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TEST REPORT

Ref.No. <i>ECL/TR/16-17/104(d)</i> Dt : <i>23.04.2016</i> Your PO No. <i>ECO/BHR/SHIVA TEST HOUSE /W.O./RS/2016</i> Dt : <i>19.04.2016</i>			
[a] Name and address of the Customer	ECO Cement Ltd. Vill.: Mahmoodganj At : Kulharia Durgawati Dist.: Bhabua (Kaimur)		
[b] Report to be submitted to	Director		
[c] Details of Sample	Monitoring of Stack Emission		
[d] Sample Collected by	SHIVA TEST HOUSE on 20.03.16		
[e] No. & Type of Container	Thimble & Glass Impinger		
[f] Items required to be tested	As per request		
[g] Whether any specific Method of Test has been suggested by the party	No		
[h] Date of receiving the sample	21.03.16		
Parameters	Method of Test	Results	
1. Stack Connected to		Bag House of gypsum & clinker feeding Section	
2. Height of Stack (as reported)		30 m.	
3. Dia of Stack at Top (as reported)		0.6 m.	
4. Draft		ID Fan	
5. Material of Construction		M.S.	
6. Ambient Temperature, °C		28.0	
7. Flue Gas Temperature, °C		49.0	
8. Velocity, m/sec.		7.1	
9. Volumetric Flow Rate, NM ³ /hr.		6684.8	
10. Sampling Point		9 m.	
		Concentration (mg / NM ³)	Limit as per E (P) Rules
11. Particulate Matter (P.M.)	IS 11255 (Part-1)	37.2	50.0 mg / NM ³
12. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	Not Detectable	Not Specified
13. Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	11.2	Not Specified



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Quality Manager / Dy. Quality Manager

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TEST REPORT

Ref.No. ECL/TR/16-17/104(c) Dt : 23.04.2016 Your PO No. ECO/BHR/SHIVA TEST HOUSE /W.O./RS/2016 Dt : 19.04.2016				
[a]	Name and address of the Customer	ECO Cement Ltd. Vill.: Mahmoodganj At : Kulharia Durgawati Dist.: Bhabua (Kaimur)		
[b]	Report to be submitted to	Director		
[c]	Details of Sample	Monitoring of Stack Emission		
[d]	Sample Collected by	SHIVA TEST HOUSE on 20.03.16		
[e]	No. & Type of Container	Thimble & Glass Impinger		
[f]	Items required to be tested	As per request		
[g]	Whether any specific Method of Test has been suggested by the party	No		
[h]	Date of receiving the sample	21.03.16		
Parameters		Method of Test	Results	
1.	Stack Connected to		Bag House of Clinker & gypsum unloader Section	
2.	Height of Stack (as reported)		30 m.	
3.	Dia of Stack at Top (as reported)		0.75 m.	
4.	Draft		ID Fan	
5.	Material of Construction		M.S.	
6.	Ambient Temperature, °C		28.0	
7.	Flue Gas Temperature, °C		51.0	
8.	Velocity, m/sec.		IS 11255 (Part-3)	8.4
9.	Volumetric Flow Rate, NM ³ /hr.			12281.3
10.	Sampling Point			11 m.
			<i>Concentration (mg / NM³)</i>	
			<i>Limit as per E (P) Rules</i>	
11.	Particulate Matter (P.M.)	IS 11255 (Part-1)	41.3 50.0 mg / NM ³	
12.	Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	Not Detectable Not Specified	
13.	Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	10.6 Not Specified	



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Authorized Signatory
Quality Manager / Dy. Quality Manager

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TEST REPORT

Ref.No. <i>ECL/TR/16-17/104(b)</i> Dt : <i>23.04.2016</i> Your PO No. <i>ECO/BHR/SHIVA TEST HOUSE /W.O./RS/2016</i> Dt : <i>19.04.2016</i>			
[a] Name and address of the Customer	ECO Cement Ltd. Vill.: Mahmoodganj At : Kulharia Durgawati Dist.: Bhabua (Kaimur)		
[b] Report to be submitted to	Director		
[c] Details of Sample	Monitoring of Stack Emission of 500 KVA DG Set		
[d] Sample Collected by	SHIVA TEST HOUSE on 20.03.16		
[e] No. & Type of Container	Thimble & Glass Impinger		
[f] Items required to be tested	As per request		
[g] Whether any specific Method of Test has been suggested by the party	No		
[h] Date of receiving the sample	21.03.16		
Parameters	Method of Test	Results	
1. Stack Connected to		500 KVA DG Set	
2. Height of Stack (as reported)		3.0 m.	
3. Dia of Stack at Top (as reported)		0.2 m.	
4. Draft		Natural	
5. Material of Construction		M.S.	
6. Ambient Temperature, °C		28.0	
7. Flue Gas Temperature, °C		180.0	
8. Velocity, m/sec.	IS 11255 (Part-3)	7.8	
9. Volumetric Flow Rate, NM ³ /hr.		580.0	
10. Sampling Point		Top of Exhaust	
		Concentration (mg / NM³)	Limit as per E (P) Rules
11. Particulate Matter (P.M.)	IS 11255 (Part-1)	44.8	75.0 mg / NM ³
12. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	70.4	Not Specified
13. Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	194.6	710.0 mg / NM ³



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Quality Manager / Dy. Quality Manager

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TEST REPORT

Ref.No. ECL/TR/16-17/104(a) Dt : 23.04.2016 Your PO No. ECO/BHR/SHIVA TEST HOUSE /W.O./RS/2016 Dt : 19.04.2016			
[a]	Name and address of the Customer	ECO Cement Ltd. Vill.: Mahmoodganj At : Kulharia Durgawati Dist.: Bhabua (Kaimur)	
[b]	Report to be submitted to	Director	
[c]	Details of Sample	Monitoring of Stack Emission of 125 KVA DG Set	
[d]	Sample Collected by	SHIVA TEST HOUSE on 20.03.16	
[e]	No. & Type of Container	Thimble & Glass Impinger	
[f]	Items required to be tested	As per request	
[g]	Whether any specific Method of Test has been suggested by the party	No	
[h]	Date of receiving the sample	21.03.16	
	Parameters	Method of Test	Results
	1. Stack Connected to		125 KVA DG Set
	2. Height of Stack (as reported)		2.1 m.
	3. Dia of Stack at Top (as reported)		0.13 m.
	4. Draft		Natural
	5. Material of Construction		M.S.
	6. Ambient Temperature, °C		28.0
	7. Flue Gas Temperature, °C		176.0
	8. Velocity, m/sec.	IS 11255 (Part-3)	6.2
	9. Volumetric Flow Rate, NM ³ /hr.		196.5
	10. Sampling Point		Top of Exhaust
			Concentration (mg / NM³)
			Limit as per E (P) Rules
	11. Particulate Matter (P.M.)	IS 11255 (Part-1)	38.6
	12. Sulphur Dioxide (SO ₂)	IS 11255 (Part-2)	64.2
	13. Oxides of Nitrogen (NO ₂)	IS 11255 (Part-7)	186.0
			75.0 mg / NM ³
			Not Specified
			710.0 mg / NM ³



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Authorized Signatory
Quality Manager / Dy. Quality Manager

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TEST REPORT

Ref. No. ECO/P-AAQ/15/159		Date :26.10.15	
(a) Name & Address		ECO Cements Ltd Vill.: Mehmoodganj At. Kulharia, Durgawati Dist.: Bhabhua	
(b) Report to be submitted to		Director	
(c) Details of sample		Monitoring of Stack Emission	
(d) No. & Type of container		Thimble ; glass impinger	
(e) Date of sample		21.10.15	
Parameter	Method of test	Result	
1 Stack connected to	IS 11255	Bag filter attached to cement mill vent	
2 Height of stack		33 m	
3 Dia of stack at top		1.2 m	
4 Draft		I.D fan	
5 Material of construction		M.S	
6 Ambient temperature C°		29°	
7 Fuel gas temperature C°		98°	
8 Velocity m/sec		7.61m.sec	
9 Sampling point		21 m	
		CONCENTRATION (mg / NM³)	Limit as per E(P) rule
10 Particulate matter (P.M)	IS 11255(PART 1)	36.47	75mg/NM³
11 Sulphur dioxide (SO ₂)	IS 11255(PART 2)	Not detectable	Not specified
12 Oxides of nitrogen (NO ₂)	IS 11255(PART 7)	12.5	710mg/NM³

ECO CEMENTS LTD.

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ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/160

Date :27.10.15

(a) Name & Address	ECO Cements Ltd Vill.: Mehmoodganj At. Kulharia, Durgawati Dist.: Bhabhua
(b) Report to be submitted to	Director
(c) Details of sample	Monitoring of Stack Emission
(d) No. & Type of container	Thimble ; glass impinger
(e) Date of sample	23.10.15

Parameter	Method of test	Result
1 Stack connected to	IS 11255	Bag filter at fly ash unloader
2 Height of stack		30 m
3 Dia of stack at top		1.05 m
4 Draft		I.D fan
5 Material of construction		M.S
6 Ambient temperature C°		28°
7 Fuel gas temperature C°		29°
8 Velocity m/sec		7.61 m/.sec
9 Sampling point		14 m
		CONCENTRATION (mg / NM³)
10 Particulate matter (P.M)	IS 11255(PART 1)	40.1
11 Sulphur dioxide (SO ₂)	IS 11255(PART 2)	Not Dec table
12 Oxides of nitrogen (NO ₂)	IS 11255(PART 7)	11.3
		Limit as per E(P) rule
		75mg/NM³
		Not specified
		710mg/nm³

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ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
 FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
 ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/161

Date :28.10.15

(a) Name & Address

ECO Cements Ltd
Vill.: Mehmoodganj
At. Kulharia, Durgawati
Dist.: Bhabhua

(b) Report to be submitted to

Director

(c) Details of sample

Monitoring of Stack Emission

(d) No. & Type of container

Thimble ; glass impinger

(e) Date of sample

23.10.15

Parameter	Method of test	Result
1 Stack connected to	IS 11255	Bag filter at clinker gypsum unloading
2 Height of stack		30 m
3 Dia of stack at top		0.75 m
4 Draft		I.D fan
5 Material of construction		M.S
6 Ambient temperature C°		29°
7 Fuel gas temperature C°		30°
8 Velocity m/sec		5.68 m/sec
9 Sampling point		11 m
		CONCENTRATION (mg / NM³)
10 Particulate matter (P.M)	IS 11255(PART 1)	35.35
11 Sulphur dioxide (SO ₂)	IS 11255(PART 2)	75mg/NM³
12 Oxides of nitrogen (NO ₂)	IS 11255(PART 7)	Not detectable
		10.1
		Limit as per E(P) rule
		Not specified
		710mg/nm³

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ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
 FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
 ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/162		Date :29.10.15	
(a) Name & Address		ECO Cements Ltd Vill.: Mehmoodganj At. Kulharia, Durgawati Dist.: Bhabhua	
(b) Report to be submitted to		Director	
(c) Details of sample		Monitoring of Stack Emission	
(d) No. & Type of container		Thimble ; glass impinger	
(e) Date of sample		24.10.15	
Parameter	Method of test	Result	
1 Stack connected to	IS 11255	Bag filter at clinker gypsum storage area	
2 Height of stack		30 m	
3 Dia of stack at top		0.75 m	
4 Draft		I.D fan	
5 Material of construction		M.S	
6 Ambient temperature C°		29°	
7 Fuel gas temperature C°		30°	
8 Velocity m/sec		5.64 m/sec	
9 Sampling point		11 m	
		CONCENTRATION (mg / NM³)	Limit as per E(P) rule
10 Particulate matter (P.M)	IS 11255(PART 1)	28.00	75mg/NM³
11 Sulphur dioxide (SO ₂)	IS 11255(PART 2)	Not detectable	Not specified
12 Oxides of nitrogen (NO ₂)	IS 11255(PART 7)	13.1	710mg/nm³

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ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
 FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
 ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/163		Date :29.10.15	
(a) Name & Address		ECO Cements Ltd Vill.: Mehmoodganj At. Kulharia, Durgawati Dist.: Bhabhua	
(b) Report to be submitted to		Director	
(c) Details of sample		Monitoring of Stack Emission	
(d) No. & Type of container		Thimble ; glass impinger	
(e) Date of sample		25.10.15	
Parameter	Method of test	Result	
1	IS 11255	Stack connected to	
2		500 kV DG set	
3		Height of stack	
4		14 m above nearest building	
5		Dia of stack at top	
6		0.2 m	
7		Draft	
8		Natural	
9		M.S	
10	IS 11255(PART 1) IS 11255(PART 2) IS 11255(PART 7)	CONCENTRATION (mg / NM ³)	Limit as per E(P) rule
11		28.15	75mg/NM ³
12		68.1	Not specified
		177.4	710mg/nm ³

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ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH - 700013
FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/164		Date :26.10.15	
(a) Name & Address		ECO Cements Ltd Vill.: Mehmoodganj At. Kulharia, Durgawati Dist.: Bhabhua	
(b) Report to be submitted to		Director	
(c) Details of sample		Monitoring of Stack Emission	
(d) No. & Type of container		Thimble ; glass impinger	
(e) Date of sample		25.10.15	
Parameter	Method of test	Result	
1	Stack connected to	125 kV DG set	
2	Height of stack	14 m(above nearest building)	
3	Dia of stack at top	0.13 m	
4	Draft	Natural	
5	Material of construction	M.S	
6	Ambient temperature C°	29°	
7	Fuel gas temperature C°	119°	
8	Velocity m/sec	6.69m/sec	
9	Sampling point	Top of exhaust	
		IS 11255	
		CONCENTRATION (mg / NM ³)	Limit as per E(P) rule
10	Particulate matter (P.M)	34.87	75mg/NM ³
11	Sulphur dioxide (SO ₂)	56.9	Not specified
12	Oxides of nitrogen (NO ₂)	178.3	710mg/nm ³

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ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1st FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
 FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
 ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/165		Date :26.11.15	
(a) Name & Address		ECO Cements Ltd Vill.: Mehmoodganj At. Kulharia, Durgawati Dist.: Bhabhua	
(b) Report to be submitted to		Director	
(c) Details of sample		Monitoring of Stack Emission	
(d) No. & Type of container		Thimble ; glass impinger	
(e) Date of sample		20.11.15	
Parameter	Method of test	Result	
1	IS 11255	Stack connected to	
2		Bag filter attached to cement mill vent	
3		Height of stack	
4		33 m	
5		Dia of stack at top	
6		1.2 m	
7		Draft	
8		I.D fan	
9		Material of construction	
10		M.S	
11		Ambient temperature C°	
12		25°	
13		Fuel gas temperature C°	
14		102°	
15		Velocity m/sec	
16		7.55m/.sec	
17		Sampling point	
18		21 m	
		CONCENTRATION (mg / NM ³)	Limit as per E(P) rule
10	Particulate matter (P.M)	IS 11255(PART 1) 29.15	75mg/NM ³
11	Sulphur dioxide (SO ₂)	IS 11255(PART 2) Not detectable	Not specified
12	Oxides of nitrogen (NO ₂)	IS 11255(PART 7) 16.3	710mg/NM ³

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(Signature)

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
 FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
 ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/166		Date :26.11.15	
(a) Name & Address		ECO Cements Ltd Vill.: Mehmoodganj At. Kulharia, Durgawati Dist.: Bhabhua	
(b) Report to be submitted to		Director	
(c) Details of sample		Monitoring of Stack Emission	
(d) No. & Type of container		Thimble ; glass impinger	
(e) Date of sample		25.11.15	
Parameter	Method of test	Result	
1	IS 11255	Stack connected to	
2		Bag filter at fly ash unloader	
3		Height of stack	
4		30 m	
5		Dia of stack at top	
6		1.05 m	
7		Draft	
8		I.D fan	
9		Material of construction	
10		M.S	
11		Ambient temperature C°	
12		26°	
13		Fuel gas temperature C°	
14		26°	
15		Velocity m/sec	
16		6.3 m/.sec	
17		Sampling point	
18		14 m	
		CONCENTRATION (mg / NM ³)	Limit as per E(P) rule
10	Particulate matter (P.M)	41.3	75mg/NM ³
11	Sulphur dioxide (SO ₂)	Not detectable	Not specified
12	Oxides of nitrogen (NO ₂)	17.3	710mg/NM ³

ECO CEMENTS LTD.

Amr. Signature

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
 FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
 ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/167

Date :28.11.15

(a) Name & Address

ECO Cements Ltd
Vill.: Mehmoodganj
At. Kulharia, Durgawati
Dist.: Bhabhua

(b) Report to be submitted to

Director

(c) Details of sample

Monitoring of Stack Emission

(d) No. & Type of container

Thimble ; glass impinger

(e) Date of sample

28.11.15

Parameter		Method of test	Result	
1	Stack connected to	IS 11255	Bag filter at clinker gypsum unloading	
2	Height of stack		30 m	
3	Dia of stack at top		0.75 m	
4	Draft		I.D fan	
5	Material of construction		M.S	
6	Ambient temperature C°		25°	
7	Fuel gas temperature C°		26°	
8	Velocity m/sec		6.73 m/sec	
9	Sampling point		11 m	
			CONCENTRATION (mg / NM ³)	Limit as per E(P) rule
10	Particulate matter (P.M)	IS 11255(PART 1)	44.27	75mg/NM³
11	Sulphur dioxide (SO ₂)	IS 11255(PART 2)	Not detectable	Not specified
12	Oxides of nitrogen (NO ₂)	IS 11255(PART 7)	18.2	710mg/NM³

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ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1st FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/168

Date :29.11.15

(a) Name & Address

ECO Cements Ltd
Vill.: Mehmoodganj
At. Kulharia, Durgawati
Dist.: Bhabhua

(b) Report to be submitted to

Director

(c) Details of sample

Monitoring of Stack Emission

(d) No. & Type of container

Thimble ; glass impinger

(e) Date of sample

29.11.15

Parameter		Method of test	Result	
1	Stack connected to	IS 11255	Bag filter at clinker gypsum storage area	
2	Height of stack		30 m	
3	Dia of stack at top		0.75 m	
4	Draft		I.D fan	
5	Material of construction		M.S	
6	Ambient temperature C°		25°	
7	Fuel gas temperature C°		26°	
8	Velocity m/sec		6.83 m/sec	
9	Sampling point		11 m	
			CONCENTRATION (mg / NM ³)	Limit as per E(P) rule
10	Particulate matter (P.M)	IS 11255(PART 1)	41.75	75mg/NM³
11	Sulphur dioxide (SO ₂)	IS 11255(PART 2)	Not detectable	Not specified
12	Oxides of nitrogen (NO ₂)	IS 11255(PART 7)	10.8	710mg/NM³

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ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1st FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/169		Date :29.11.15	
(a) Name & Address		ECO Cements Ltd Vill.: Mehmoodganj At. Kulharia, Durgawati Dist.: Bhabhua	
(b) Report to be submitted to		Director	
(c) Details of sample		Monitoring of Stack Emission	
(d) No. & Type of container		Thimble ; glass impinger	
(e) Date of sample		29.11.15	
Parameter	Method of test	Result	
1 Stack connected to	IS 11255	500 kV DG set	
2 Height of stack		14 m above nearest building	
3 Dia of stack at top		0.2 m	
4 Draft		Natural	
5 Material of construction		M.S	
6 Ambient temperature C°		25°	
7 Fuel gas temperature C°		120°	
8 Velocity m/sec		8.64 m/sec	
9 Sampling point		Top of exhaust	
		CONCENTRATION (mg / NM³)	Limit as per E(P) rule
10 Particulate matter (P.M)	IS 11255(PART 1)	48	75mg/NM³
11 Sulphur dioxide (SO ₂)	IS 11255(PART 2)	61.6	Not specified
12 Oxides of nitrogen (NO ₂)	IS 11255(PART 7)	184.4	710mg/NM³

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ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1st FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
 FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAWATI, BHABHUA, BIHAR
 ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/170		Date :26.11.15			
(a) Name & Address		ECO Cements Ltd Vill.: Mehmoodganj At. Kulharia, Durgawati Dist.: Bhabhua			
(b) Report to be submitted to		Director			
(c) Details of sample		Monitoring of Stack Emission			
(d) No. & Type of container		Thimble ; glass impinger			
(e) Date of sample		26.11.15			
Parameter	Method of test	Result			
1	Stack connected to	IS 11255			
2	Height of stack			125 kV DG set	
3	Dia of stack at top			14 m(above nearest building)	
4	Draft			0.13 m	
5	Material of construction			Natural	
6	Ambient temperature C°			M.S	
7	Fuel gas temperature C°			23°	
8	Velocity m/sec			109°	
9	Sampling point			8.43 m/sec	
		Top of exhaust			
		CONCENTRATION (mg / NM³)	Limit as per E(P) rule		
10	Particulate matter (P.M)	48.15	75mg/NM³		
11	Sulphur dioxide (SO ₂)	55.1	Not specified		
12	Oxides of nitrogen (NO ₂)	177.4	710mg/NM³		

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ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/171		Date :26.12.15	
(a) Name & Address		ECO Cements Ltd Vill.: Mehmoodganj At. Kulharia, Durgawati Dist.: Bhabhua	
(b) Report to be submitted to		Director	
(c) Details of sample		Monitoring of Stack Emission	
(d) No. & Type of container		Thimble ; glass impinger	
(e) Date of sample		22.12.15	
Parameter	Method of test	Result	
1	IS 11255	Stack connected to	
2		Bag filter attached to cement mill vent	
3		Height of stack	
4		33 m	
5		Dia of stack at top	
6		1.2 m	
7		Draft	
8		I.D fan	
9		Material of construction	
		M.S	
6		Ambient temperature C°	
		25°	
7		Fuel gas temperature C°	
		104°	
8		Velocity m/sec	
		7.28 m/sec	
9		Sampling point	
		21 m	
		CONCENTRATION (mg / NM ³)	Limit as per E(P) rule
10	Particulate matter (P.M)	41.49	75mg/NM ³
11	Sulphur dioxide (SO ₂)	Not detectable	Not specified
12	Oxides of nitrogen (NO ₂)	10.1	710mg/NM ³

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Auth. Signatory

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
 FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
 ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/172		Date :27.12.15	
(a) Name & Address		ECO Cements Ltd Vill.: Mehmoodganj At. Kulharia, Durgawati Dist.: Bhabhua	
(b) Report to be submitted to		Director	
(c) Details of sample		Monitoring of Stack Emission	
(d) No. & Type of container		Thimble ; glass impinger	
(e) Date of sample		25.12.15	
Parameter	Method of test	Result	
1	IS 11255	Stack connected to	
2		Bag filter at fly ash unloader	
3		Height of stack	
4		30 m	
5		Dia of stack at top	
6		1.05 m	
7		Draft	
8		I.D fan	
9		Material of construction	
10	M.S		
11	Ambient temperature C°		
12	25°		
13	Fuel gas temperature C°		
14	25°		
15	Velocity m/sec		
16	6.67 m/.sec		
17	Sampling point		
18	14 m		
		CONCENTRATION (mg / NM ³)	Limit as per E(P) rule
10	Particulate matter (P.M)	IS 11255(PART 1)	75mg/NM³
11	Sulphur dioxide (SO ₂)	IS 11255(PART 2)	Not detectable
12	Oxides of nitrogen (NO ₂)	IS 11255(PART 7)	Not specified
		9.8	710mg/NM³

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ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1st FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
 FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
 ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/173		Date :28.12.15	
(a) Name & Address		ECO Cements Ltd Vill.: Mehmoodganj At. Kulharia, Durgawati Dist.: Bhabhua	
(b) Report to be submitted to		Director	
(c) Details of sample		Monitoring of Stack Emission	
(d) No. & Type of container		Thimble ; glass impinger	
(e) Date of sample		26.12.15	
Parameter	Method of test	Result	
1 Stack connected to	IS 11255	Bag filter at clinker gypsum unloading	
2 Height of stack		30 m	
3 Dia of stack at top		0.75 m	
4 Draft		I.D fan	
5 Material of construction		M.S	
6 Ambient temperature C°		19°	
7 Fuel gas temperature C°		20°	
8 Velocity m/sec		5.78 m/sec	
9 Sampling point		11 m	
		CONCENTRATION (mg / NM ³)	Limit as per E(P) rule
10 Particulate matter (P.M)	IS 11255(PART 1)	30.94	75mg/NM³
11 Sulphur dioxide (SO ₂)	IS 11255(PART 2)	Not detectable	Not specified
12 Oxides of nitrogen (NO ₂)	IS 11255(PART 7)	13.6	710mg/NM³

ECO CEMENTS LTD.

Auth. Signatory

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
 FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
 ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/174		Date :29.12.15	
(a) Name & Address		ECO Cements Ltd Vill.: Mehmoodganj At. Kulharia, Durgawati Dist.: Bhabhua	
(b) Report to be submitted to		Director	
(c) Details of sample		Monitoring of Stack Emission	
(d) No. & Type of container		Thimble ; glass impinger	
(e) Date of sample		27.12.15	
Parameter	Method of test	Result	
1	IS 11255	Stack connected to	
2		Bag filter at clinker gypsum storage area	
3		Height of stack	
4		30 m	
5		Dia of stack at top	
6		0.75 m	
7		Draft	
8		I.D fan	
9		Material of construction	
		M.S	
6		Ambient temperature C°	
		19°	
7		Fuel gas temperature C°	
		20°	
8		Velocity m/sec	
		6.42m/sec	
9		Sampling point	
		11 m	
		CONCENTRATION (mg / NM ³)	Limit as per E(P) rule
10	IS 11255(PART 1)	40.44	75mg/NM³
11	IS 11255(PART 2)	Not detectable	Not specified
12	IS 11255(PART 7)	11.8	710mg/NM³

ECO CEMENTS LTD.

Andl. Signatory

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAWATI, BHABHUA, BIHAR
ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/175

Date :29.12.15

(a) Name & Address

ECO Cements Ltd
Vill.: Mehmoodganj
At. Kulharia, Durgawati
Dist.: Bhabhua

(b) Report to be submitted to

Director

(c) Details of sample

Monitoring of Stack Emission

(d) No. & Type of container

Thimble ; glass impinger

(e) Date of sample

28.12.15

Parameter		Method of test	Result	
1	Stack connected to	IS 11255	500 kV DG set	
2	Height of stack		14 m above nearest building	
3	Dia of stack at top		0.2 m	
4	Draft		Natural	
5	Material of construction		M.S	
6	Ambient temperature C°		20°	
7	Fuel gas temperature C°		120°	
8	Velocity m/sec		8.11 m/sec	
9	Sampling point		Top of exhaust	
			CONCENTRATION (mg / NM ³)	Limit as per E(P) rule
10	Particulate matter (P.M)	IS 11255(PART 1)	41.62	75mg/NM³
11	Sulphur dioxide (SO ₂)	IS 11255(PART 2)	66.2	Not specified
12	Oxides of nitrogen (NO ₂)	IS 11255(PART 7)	187.4	710mg/NM³

ECO CEMENTS LTD.

Amr. Signatory

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1st FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013

FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR

ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/176		Date :26.12.15	
(a) Name & Address		ECO Cements Ltd Vill.: Mehmoodganj At. Kulharia, Durgawati Dist.: Bhabhua	
(b) Report to be submitted to		Director	
(c) Details of sample		Monitoring of Stack Emission	
(d) No. & Type of container		Thimble ; glass impinger	
(e) Date of sample		24.12.15	
Parameter	Method of test	Result	
1	IS 11255	Stack connected to	
2		125 kV DG set	
3		Height of stack	
4		14 m(above nearest building)	
5		Dia of stack at top	
6		0.13 m	
7		Draft	
8		Natural	
9		Material of construction	
		M.S	
6		Ambient temperature C°	
		18°	
7		Fuel gas temperature C°	
		116°	
8		Velocity m/sec	
		8 m/sec	
9		Sampling point	
		Top of exhaust	
		CONCENTRATION (mg / NM ³)	Limit as per E(P) rule
10	Particulate matter (P.M)	IS 11255(PART 1)	42.74
11	Sulphur dioxide (SO ₂)	IS 11255(PART 2)	75mg/NM ³
12	Oxides of nitrogen (NO ₂)	IS 11255(PART 7)	54.6
			Not specified
			179.6
			710mg/NM ³

ECO CEMENTS LTD.

M. Signatory

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1st FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
 FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAWATI, BHABHUA, BIHAR
 ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/177		Date :26.01.16	
(a) Name & Address		ECO Cements Ltd Vill.: Mehmooganj At. Kulharia, Durgawati Dist.: Bhabhua	
(b) Report to be submitted to		Director	
(c) Details of sample		Monitoring of Stack Emission	
(d) No. & Type of container		Thimble ; glass impinger	
(e) Date of sample		22.01.16	
Parameter	Method of test	Result	
1	Stack connected to	IS 11255	
2	Height of stack		
3	Dia of stack at top		
4	Draft		
5	Material of construction		
6	Ambient temperature C°		
7	Fuel gas temperature C°		
8	Velocity m/sec		
9	Sampling point		
		CONCENTRATION (mg / NM³)	Limit as per E(P) rule
10	Particulate matter (P.M)	37.9	75mg/NM ³
11	Sulphur dioxide (SO ₂)	Not detectable	Not specified
12	Oxides of nitrogen (NO ₂)	12.4	710mg/NM ³


ECO CEMENTS LTD.

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAWATI, BHABHUA, BIHAR
ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/178		Date :26.01.16	
(a) Name & Address		ECO Cements Ltd Vill.: Mehmooganj At. Kulharia, Durgawati Dist.: Bhabhua	
(b) Report to be submitted to		Director	
(c) Details of sample		Monitoring of Stack Emission	
(d) No. & Type of container		Thimble ; glass impinger	
(e) Date of sample		23.01.16	
Parameter	Method of test	Result	
1	Stack connected to	IS 11255	
2	Height of stack		
3	Dia of stack at top		
4	Draft		
5	Material of construction		
6	Ambient temperature C°		
7	Fuel gas temperature C°		
8	Velocity m/sec		
9	Sampling point		
		CONCENTRATION (mg / NM³)	Limit as per E(P) rule
10	Particulate matter (P.M)	42.23	75mg/NM³
11	Sulphur dioxide (SO ₂)	Not detectable	Not specified
12	Oxides of nitrogen (NO ₂)	12.4	710mg/NM³

ECO CEMENTS LTD.


ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/179		Date :26.01.16	
(a) Name & Address		ECO Cements Ltd Vill.: Mehmoodganj At. Kulharia, Durgawati Dist.: Bhabhua	
(b) Report to be submitted to		Director	
(c) Details of sample		Monitoring of Stack Emission	
(d) No. & Type of container		Thimble ; glass impinger	
(e) Date of sample		24.01.16	
Parameter	Method of test	Result	
1	IS 11255	Stack connected to	
2		Bag filter at clinker gypsum unloading	
3		30 m	
4		Dia of stack at top	
5		0.75 m	
6		Draft	
7		I.D fan	
8		Material of construction	
9		M.S	
10		Ambient temperature C°	
11		13°	
12		Fuel gas temperature C°	
13		14°	
14		Velocity m/sec	
15		6.59 m/sec	
16		Sampling point	
17		11 m	
		CONCENTRATION (mg / NM ³)	Limit as per E(P) rule
10	Particulate matter (P.M)	30	75mg/NM ³
11	Sulphur dioxide (SO ₂)	Not detectable	Not specified
12	Oxides of nitrogen (NO ₂)	10.1	710mg/NM ³

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
 FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
 ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/180		Date :26.01.16	
(a) Name & Address		ECO Cements Ltd Vill.: Mehmooganj At. Kulharia, Durgawati Dist.: Bhabhua	
(b) Report to be submitted to		Director	
(c) Details of sample		Monitoring of Stack Emission	
(d) No. & Type of container		Thimble ; glass impinger	
(e) Date of sample		24.01.16	
Parameter	Method of test	Result	
1	Stack connected to	Bag filter at clinker gypsum storage area	
2	Height of stack	30 m	
3	Dia of stack at top	0.75 m	
4	Draft	I.D fan	
5	Material of construction	M.S	
6	Ambient temperature C°	13°	
7	Fuel gas temperature C°	14°	
8	Velocity m/sec	6.69 m/sec	
9	Sampling point	11 m	
		IS 11255	
		CONCENTRATION (mg / NM³)	Limit as per E(P) rule
10	Particulate matter (P.M)	38.77	75mg/NM³
11	Sulphur dioxide (SO ₂)	Not detectable	Not specified
12	Oxides of nitrogen (NO ₂)	12	710mg/NM³

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ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/181		Date :26.01.16	
(a) Name & Address		ECO Cements Ltd Vill.: Mehmoodganj At. Kulharia, Durgawati Dist.: Bhabhua	
(b) Report to be submitted to		Director	
(c) Details of sample		Monitoring of Stack Emission	
(d) No. & Type of container		Thimble ; glass impinger	
(e) Date of sample		25.01.16	
Parameter	Method of test	Result	
1	IS 11255	Stack connected to	
2		500 kV DG set	
3		Height of stack	
4		14 m above nearest building	
5		Dia of stack at top	
6		0.2 m	
7		Draft	
8		Natural	
9		Material of construction	
10		M.S	
11		Ambient temperature C°	
12		15°	
13		Fuel gas temperature C°	
14		120°	
15		Velocity m/sec	
16		8.64 m/sec	
17		Sampling point	
18		Top of exhaust	
		CONCENTRATION (mg / NM ³)	Limit as per E(P) rule
10	Particulate matter (P.M)	IS 11255(PART 1)	41.27
11	Sulphur dioxide (SO ₂)	IS 11255(PART 2)	75mg/NM ³
12	Oxides of nitrogen (NO ₂)	IS 11255(PART 7)	64.3
			Not specified
			192.7
			710mg/NM ³

ECO CEMENTS LTD.

Auth. Signatory

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
 FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
 ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/182		Date :26.01.16	
(a) Name & Address		ECO Cements Ltd Vill.: Mehmoodganj At. Kulharia, Durgawati Dist.: Bhabhua	
(b) Report to be submitted to		Director	
(c) Details of sample		Monitoring of Stack Emission	
(d) No. & Type of container		Thimble ; glass impinger	
(e) Date of sample		25.01.16	
Parameter	Method of test	Result	
1	IS 11255	Stack connected to	
2		125 kV DG set	
3		Height of stack	
4		14 m(above nearest building)	
5		Dia of stack at top	
6		0.13 m	
7		Draft	
8		Natural	
9		Material of construction	
10		M.S	
11		Ambient temperature C°	
12		14°	
13		Fuel gas temperature C°	
14		118°	
15		Velocity m/sec	
16		8.53 m/sec	
17		Sampling point	
18		Top of exhaust	
		CONCENTRATION (mg / NM ³)	Limit as per E(P) rule
10	IS 11255(PART 1)	42.37	75mg/NM³
11	IS 11255(PART 2)	54.4	Not specified
12	IS 11255(PART 7)	177.6	710mg/NM³

ECO CEMENTS LTD.

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ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1st FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
 FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
 ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/183		Date :25.02.16	
(a) Name & Address		ECO Cements Ltd Vill.: Mehmoodganj At. Kulharia, Durgawati Dist.: Bhabhua	
(b) Report to be submitted to		Director	
(c) Details of sample		Monitoring of Stack Emission	
(d) No. & Type of container		Thimble ; glass impinger	
(e) Date of sample		20.02.16	
Parameter	Method of test	Result	
1	IS 11255	Stack connected to	
2		Bag filter attached to cement mill vent	
3		Height of stack	
4		33 m	
5		Dia of stack at top	
6		1.2 m	
7		Draft	
8		I.D fan	
9		Material of construction	
10		M.S	
11		Ambient temperature C°	
12		18°	
13		Fuel gas temperature C°	
14		103°	
15		Velocity m/sec	
16		7.56 m/sec	
17		Sampling point	
18		21 m	
		CONCENTRATION (mg / NM ³)	Limit as per E(P) rule
10	Particulate matter (P.M)	44.44	75mg/NM ³
11	Sulphur dioxide (SO ₂)	Not detectable	Not specified
12	Oxides of nitrogen (NO ₂)	12.1	710mg/NM ³

ECO CEMENTS LTD.

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
 FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
 ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/184		Date :25.02.16	
(a) Name & Address		ECO Cements Ltd Vill.: Mehmoodganj At. Kulharia, Durgawati Dist.: Bhabhua	
(b) Report to be submitted to		Director	
(c) Details of sample		Monitoring of Stack Emission	
(d) No. & Type of container		Thimble ; glass impinger	
(e) Date of sample		25.02.16	
Parameter	Method of test	Result	
1	IS 11255	Stack connected to	
2		Bag filter at fly ash unloader	
3		Height of stack	
4		30 m	
5		Dia of stack at top	
6		1.05 m	
7		Draft	
8		I.D fan	
9		Material of construction	
10		M.S	
11		Ambient temperature C°	
12		31°	
13		Fuel gas temperature C°	
14		36°	
15		Velocity m/sec	
16		6.3 m/.sec	
17		Sampling point	
18		14 m	
		CONCENTRATION (mg / NM ³)	Limit as per E(P) rule
10	Particulate matter (P.M)	IS 11255(PART 1)	75mg/NM³
11	Sulphur dioxide (SO ₂)	IS 11255(PART 2)	Not detectable
12	Oxides of nitrogen (NO ₂)	IS 11255(PART 7)	Not specified
		17.1	710mg/NM³

ECO CEMENTS LTD.

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1st FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
 FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
 ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/185		Date :25.02.16	
(a) Name & Address		ECO Cements Ltd Vill.: Mehmoodganj At. Kulharia, Durgawati Dist.: Bhabhua	
(b) Report to be submitted to		Director	
(c) Details of sample		Monitoring of Stack Emission	
(d) No. & Type of container		Thimble ; glass impinger	
(e) Date of sample		21.02.16	
Parameter	Method of test	Result	
1	IS 11255	Stack connected to	
2		Bag filter at clinker gypsum unloading	
3		30 m	
4		Dia of stack at top	
5		0.75 m	
6		Draft	
7		I.D fan	
8		Material of construction	
9		M.S	
10		CONCENTRATION (mg / NM ³)	Limit as per E(P) rule
11	IS 11255(PART 1)	25.91	75mg/NM ³
12	IS 11255(PART 2)	Not detectable	Not specified
	IS 11255(PART 7)	10.2	710mg/NM ³

ECO CEMENTS LTD.

Auth. Signatory

ECO CEMENTS LIMITED

REGD. OFF. : 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013

FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR

ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/186

Date :25.02.16

(a) Name & Address

ECO Cements Ltd
Vill.: Mehmoodganj
At. Kulharia, Durgawati
Dist.: Bhabhua

(b) Report to be submitted to

Director

(c) Details of sample

Monitoring of Stack Emission

(d) No. & Type of container

Thimble ; glass impinger

(e) Date of sample

22.02.16

Parameter		Method of test	Result	
1	Stack connected to	IS 11255	Bag filter at clinker gypsum storage area	
2	Height of stack		30 m	
3	Dia of stack at top		0.75 m	
4	Draft		I.D fan	
5	Material of construction		M.S	
6	Ambient temperature C°		20°	
7	Fuel gas temperature C°		21°	
8	Velocity m/sec		6.34 m/sec	
9	Sampling point		11 m	
			CONCENTRATION (mg / NM ³)	Limit as per E(P) rule
10	Particulate matter (P.M)	IS 11255(PART 1)	37.94	75mg/NM³
11	Sulphur dioxide (SO ₂)	IS 11255(PART 2)	Not detectable	Not specified
12	Oxides of nitrogen (NO ₂)	IS 11255(PART 7)	17.7	710mg/NM³

ECO CEMENTS LTD.

Signature

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH - 700013
FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAWATI, BHABHUA, BIHAR
ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/187		Date :25.02.16	
(a) Name & Address		ECO Cements Ltd Vill.: Mehmoodganj At. Kulharia, Durgawati Dist.: Bhabhua	
(b) Report to be submitted to		Director	
(c) Details of sample		Monitoring of Stack Emission	
(d) No. & Type of container		Thimble ; glass impinger	
(e) Date of sample		23.02.16	
Parameter	Method of test	Result	
1	IS 11255	Stack connected to	
2		500 kV DG set	
3		Height of stack	
4		14 m above nearest building	
5		Dia of stack at top	
6		0.2 m	
7		Draft	
8		Natural	
9		Material of construction	
		M.S	
6		Ambient temperature C°	
		19°	
7		Fuel gas temperature C°	
		118°	
8		Velocity m/sec	
		7.52 m/sec	
9		Sampling point	
		Top of exhaust	
		CONCENTRATION (mg / NM ³)	Limit as per E(P) rule
10	Particulate matter (P.M)	IS 11255(PART 1)	40.11
11	Sulphur dioxide (SO ₂)	IS 11255(PART 2)	75mg/NM ³
12	Oxides of nitrogen (NO ₂)	IS 11255(PART 7)	66.3
			Not specified
			187.4
			710mg/NM ³

ECO CEMENTS LTD.

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
 FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
 ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

(Signature)
Auth. Signatory

TEST REPORT

Ref. No. ECO/P-AAQ/15/188		Date :25.02.16	
(a) Name & Address		ECO Cements Ltd Vill.: Mehmoodganj At. Kulharia, Durgawati Dist.: Bhabhua	
(b) Report to be submitted to		Director	
(c) Details of sample		Monitoring of Stack Emission	
(d) No. & Type of container		Thimble ; glass impinger	
(e) Date of sample		24.02.16	
Parameter	Method of test	Result	
1 Stack connected to	IS 11255	125 kV DG set	
2 Height of stack		14 m(above nearest building)	
3 Dia of stack at top		0.13 m	
4 Draft		Natural	
5 Material of construction		M.S	
6 Ambient temperature C°		20°	
7 Fuel gas temperature C°		120°	
8 Velocity m/sec		6.58 m/sec	
9 Sampling point		Top of exhaust	
		CONCENTRATION (mg / NM ³)	Limit as per E(P) rule
10 Particulate matter (P.M)	IS 11255(PART 1)	40.19	75mg/NM ³
11 Sulphur dioxide (SO ₂)	IS 11255(PART 2)	57.1	Not specified
12 Oxides of nitrogen (NO ₂)	IS 11255(PART 7)	177.8	710mg/NM ³

ECO CEMENTS LTD.

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1st FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
 FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
 ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/131		Date :25.10.15				
(a) Name & Address		ECO Cements Ltd Vill.: Mehmoodganj At. Kulharia, Durgawati Dist.: Bhabhua				
(b) Report to be submitted to		Director				
(c) Details of sample		Monitoring of Ambient Air Quaiity				
(d) No. & Type of container		Filter Paper; glass impinger				
(e) Date of sample		18.10.15				
SAMPING STATION						
Parameters	Method of test	Near Main Gate	Near CCR	Near canteen	Near Gypsum Storage	Limit as NAAQS NOV.2009
1. Particulate Matter (PM ₁₀), µg/m ³	IS 5182 (Part-23)	74.22,76.44,72	71.25,70.12,72.38	73.12.75.24,71	66.5,69.38,72.26	100 µg/m ³
2. Sulphur Di Oxide SO ₂ µg/m ³	IS 5182 (Part-23)	14.5,15.9,9.6	19.3,15.6,10.9	19.1,7.9,11.9	15.4,11.5,11.6	80 µg/m ³
3. Nitrogen Di Oxide NO ₂ µg/m ³	IS 5182 (Part-23)	9.7,9.7,10.9	9.5,9.9,10.2	11.9,11.7,11.1	12.1,12.9,11.6	80 µg/m ³
Average value						
PM ₁₀		74.22	71.25	73.12	69.38	
SO ₂		13.1	15.26	12.9	12.8	
NO ₂		10	9.8	11.5	12.2	

ECOCEMENTS LTD.



ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
 FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
 ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/132

Date :26.11.15

(a) Name & Address	ECO Cements Ltd Vill.: Mehmoodganj At. Kulharia, Durgawati Dist.: Bhabhua
(b) Report to be submitted to	Director
(c) Details of sample	Monitoring of Ambient Air Quaiy
(d) No. & Type of container	Filter Paper; glass impinger
(e) Date of sample	20.11.15

SAMPING STATION

Parameters	Method of test	Near Main Gate	Near CCR	Near canteen	Near Gypsum Storage	Limit as NAAQS NOV.2009
1. Particulate Matter (PM ₁₀), $\mu\text{g}/\text{m}^3$	IS 5182 (Part-23)	72.8,75.96,78.12	72.08,72.58,73.08	75.75,75,74.25	75.46,76.35,77.24	100 $\mu\text{g}/\text{m}^3$
2. Sulphur Di Oxide SO ₂ $\mu\text{g}/\text{m}^3$	IS 5182 (Part-23)	17.9,10.9,9.6	21.2,8.9,11.6	18.4,13.6,11.5	16.5,9.2,11.9	80 $\mu\text{g}/\text{m}^3$
3. Nitrogen Di Oxide NO ₂ $\mu\text{g}/\text{m}^3$	IS 5182 (Part-23)	9.5,9.9,10.2	9.7,9.7,11.4	12,12.9,12.6	11.1,12.4,14	80 $\mu\text{g}/\text{m}^3$
Average value						
PM ₁₀		75.96	72.58	75	76.35	
SO ₂		12.8	13.9	14.6	12.5	
NO ₂		9.8	10.2	12.5	12.5	

ECO CEMENTS LTD.

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
 FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
 ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/133		Date :26.12.15				
(a) Name & Address		ECO Cements Ltd Vill.: Mehmoodganj At. Kulharia, Durgawati Dist.: Bhabhua				
(b) Report to be submitted to		Director				
(c) Details of sample		Monitoring of Ambient Air Quaity				
(d) No. & Type of container		Filter Paper; glass impinger				
(e) Date of sample		21.12.15				
SAMPING STATION						
Parameters	Method of test	Near Main Gate	Near CCR	Near canteen	Near Gypsum Storage	Limit as NAAQS NOV.2009
1. Particulate Matter (PM ₁₀), µg/m ³	IS 5182 (Part-23)	70.35,67.56,73.14	64.75,68.59,72.42	75.66,77.84,80.02	69.25,65.48,73.02	100 µg/m ³
2. Sulphur Di Oxide SO ₂ µg/m ³	IS 5182 (Part-23)	16.4,15.4,12.6	17.6,9.2,9.8,	16.6,18.9,12.9	15.1,18.5,11.9	80 µg/m ³
3. Nitrogen Di Oxide NO ₂ µg/m ³	IS 5182 (Part-23)	10.2,12.9,9.8	10.4,11.7,11.5	12.3,11.9,12.9	11.9,9.9,10.6	80 µg/m ³
Average value						
PM ₁₀		70.35	68.59	77.84	69.25	
SO ₂		14.8	12.2	16.1	69.25	
NO ₂		10.9	11.2	12.3	10.8	

ECO CEMENTS LTD.

(Handwritten Signature)

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
 FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
 ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/134

Date : 22.01.2016

(a) Name & Address

ECO Cements Ltd
Vill.: Mehmoodganj
At. Kulharia, Durgawati
Dist.: Bhabhua

(b) Report to be submitted to

Director

(c) Details of sample

Monitoring of Ambient Air Quaiity

(d) No. & Type of container

Filter Paper; glass impinger

(e) Date of sample

22.01.2016

SAMPING STATION

Parameters	Method of test	Near Main Gate	Near CCR	Near canteen	Near Gypsum Storage	Limit as NAAQS NOV.2009
1. Particulate Matter (PM ₁₀), µg/m ³	IS 5182 (Part-23)	62.23,64.73,67.23	81.65,85.15,78.15	78.08,79.58,81.08	77.41,74.55,80.27	100 µg/m ³
2. Sulphur Di Oxide SO ₂ µg/m ³	IS 5182 (Part-23)	10,10.8,12.9	15.7,10.7,11.9	16.1,9.9,12.6	17.8,10.5,9.8	80 µg/m ³
3. Nitrogen Di Oxide NO ₂ µg/m ³	IS 5182 (Part-23)	11.4,11.9,12.1	11.6,11.4,12.1	11.9,11.2,10.6	9.9,9.4,11.6	80 µg/m ³

Average value

PM ₁₀		64.73	85.15	79.58	77.41	
SO ₂		11.2	12.76	12.8	12.7	
NO ₂		11.8	11.7	11.2	10.3	

ECO CEMENTS LTD.

Signature

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013

FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR

ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-AAQ/15/135		Date : 26.02.2016				
(a) Name & Address		ECO Cements Ltd Vill.: Mehmoodganj At. Kulharia, Durgawati Dist.: Bhabhua				
(b) Report to be submitted to		Director				
(c) Details of sample		Monitoring of Ambient Air Quaiity				
(d) No. & Type of container		Filter Paper; glass impinger				
(e) Date of sample		26.02.2016				
SAMPING STATION						
Parameters	Method of test	Near Main Gate	Near CCR	Near canteen	Near Gypsum Storage	Limit as NAAQS NOV.2009
1. Particulate Matter (PM ₁₀), µg/m ³	IS 5182 (Part-23)	73.51,71.65,75.37	79.71,79.15,80.27	74.4,75.26,73.54	79.64,80.42,81.18	100 µg/m ³
2. Sulphur Di Oxide SO ₂ µg/m ³	IS 5182 (Part-23)	9.7,10.8,11.9	9.2,9.7,10.6	11.4,8.9,10.6	8.4,12.8,14.5	80 µg/m ³
3. Nitrogen Di Oxide NO ₂ µg/m ³	IS 5182 (Part-23)	11.1,10.7,12.7	12.7,11.7,11.1	11.2,11.5,11.9	10.2,9.3,11.5	80 µg/m ³
Average value						
PM ₁₀		73.51	79.71	74.4	80.42	
SO ₂		10.8	9.8	10.3	11.9	
NO ₂		11.2	11.9	12.1	10.2	

ECO CEMENTS LTD.

Signature

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
 FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
 ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074



SHIVA TEST HOUSE

Tel. : 0612 – 2247538/ 2240752 ; TeleFax : 0612 - 2590705
E.mail.: sthpatna1@yahoo.co.in



ISO 18001:2007
OHSAS Certified

RECOGNISED AS ENVIRONMENTAL LABORATORY BY CENTRAL GOVT. UNDER ENVIRONMENT (PROTECTION) ACT 1986,
BY DEPTT.OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref.No. ECL/TR/16-17/104(g) Dt : 23.04.2016 Your PO No. ECO/BHR/SHIVA TEST HOUSE /W.O./RS/2016 Dt : 19.04.2016						
[a]	Name and address of the Customer	ECO Cement Ltd. Vill.: Mahmoodganj At : Kulharia Durgawati Dist.: Bhabua (Kaimur)				
[b]	Report to be submitted to	Director				
[c]	Details of Sample	Monitoring of Ambient Air Quality				
[d]	Sample Collected by	SHIVA TEST HOUSE on 20.03.16				
[e]	No. & Type of Container	Filter Paper ; Glass Impinger				
[f]	Items required to be tested	As per request				
[g]	Whether any specific Method of Test has been suggested by the party	No				
[h]	Date of receiving the sample	21.03.16				
Parameters	Method of Test	Sampling Station				Limit as NAAQS Nov.'2009
		Near Main Gate	Near CCR	Near Canteen	Near Gypsum & Clinker Storage Area	
1. Particulate Matter (PM ₁₀), µg / m ³	IS 5182 (Part-23)	71.6	79.9	79.7	86.2	100 µg / m ³
		77.4	108.5	73.7	80.0	
		67.9	67.7	67.7	74.7	
2. Particulate Matter (PM _{2.5}), µg / m ³	CPCB	42.3	47.2	47.1	50.9	60 µg / m ³
		45.7	64.1	43.5	47.3	
		40.1	40.0	40.0	44.1	
3. Sulphur Dioxide as SO ₂ , µg / m ³	IS 5182 (Part-2)	23.2	26.5	27.7	33.5	80 µg / m ³
		25.7	28.3	28.7	36.9	
		29.0	31.1	30.7	40.2	
		27.4	24.7	33.5	39.1	
		21.5	22.0	35.4	28.0	
4. Nitrogen Dioxide as NO ₂ , µg / m ³	IS 5182 (Part-6)	19.1	20.2	26.7	25.7	80 µg / m ³
		33.8	36.8	44.6	47.6	
		35.2	37.7	45.9	49.4	
		39.5	39.1	47.7	51.9	
		33.2	37.3	41.2	48.4	
24 Hrs. Average Value						
PM ₁₀		72.3	85.4	73.7	80.3	
PM _{2.5}		42.7	50.4	43.6	47.4	
SO ₂		24.3	25.5	30.5	33.9	
NO ₂		33.7	35.9	43.1	48.3	



[Signature]

Authorized Signatory
Quality Manager / Dy. Quality Manager

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

TEST REPORT

REF. NO. ECO/P-ANL/15/168

DATE 27.10.15

A.	NAME AND ADDRESS	ECO CEMENT LTD. VILL: Mahmoodganj At. Kulharia, Durgwati. Dist : Bhabhua
B.	Report to be submitted to	Director
C.	Details of sample	Monitoring of Ambient Noise Level
D.	Monitored by	Eco cement ltd.
E.	Date of monitoring	18.10.15
Sampling location		Time weighed average (TWA) of noise level in dB(A)
1.	Near main gate	61.6
2.	Near CCR	61.9
3.	Near canteen	62.4
4.	Near gypsum storage area	61.8
5.	Near clinker storage area	62.9

The ambient air quality standards in respect of noise as per noise pollution (regulation and control). Rules 2000 industrial area is 75.0 dB (A) for commercial area is 65.0 dB(A). for residential area is 55.0 dB(A) & for silent zone is 50.0 dB(A) in daytime i.e 6 a.m to 9 p.m as per rule 7 (1&2) the authority shall take action against violators if the noise level exceeds the ambient noise standards by 10 dB(A) or more against any area/zone.

ECO CEMENTS LTD.

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1st FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH - 700013
 FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
 ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

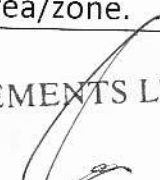
REF. NO. ECO/P-ANL/15/169

DATE 27.11.15

A.	NAME AND ADDRESS	ECO CEMENT LTD. VILL: Mahmoodganj At. Kulharia, Durgwati. Dist : Bhabhua
B.	Report to be submitted to	Director
C.	Details of sample	Monitoring of Ambient Noise Level
D.	Monitored by	Eco cement ltd.
E.	Date of monitoring	18.10.15
Sampling location		Time weighed average (TWA) of noise level in dB(A)
1.	Near main gate	69.1
2.	Near CCR	58.4
3.	Near canteen	64.6
4.	Near gypsum storage area	58.8
5.	Near clinker storage area	60.2

The ambient air quality standards in respect of noise as per noise pollution (regulation and control). Rules 2000 industrial area is 75.0 dB (A) for commercial area is 65.0 dB(A). for residential area is 55.0 dB(A) & for silent zone is 50.0 dB(A) in daytime i.e 6 a.m to 9 p.m as per rule 7 (1&2) the authority shall take action against violators if the noise level exceeds the ambient noise standards by 10 dB(A) or more against any area/zone.

ECO CEMENTS LTD.


Auth. Signatory

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

REF. NO. ECO/P-ANL/15/170

DATE 27.12.15

A.	NAME AND ADDRESS	ECO CEMENT LTD. VILL: Mahmoodganj At. Kulharia, Durgwati. Dist : Bhabhua
B.	Report to be submitted to	Director
C.	Details of sample	Monitoring of Ambient Noise Level
D.	Monitored by	Eco cement ltd.
E.	Date of monitoring	18.12.15
Sampling location		Time weighed average (TWA) of noise level in dB(A)
1.	Near main gate	57.6
2.	Near CCR	60.8
3.	Near canteen	64.3
4.	Near gypsum storage area	63.9
5.	Near clinker storage area	64.8

The ambient air quality standards in respect of noise as per noise pollution (regulation and control). Rules 2000 industrial area is 75.0 dB (A) for commercial area is 65.0 dB(A). for residential area is 55.0 dB(A) & for silent zone is 50.0 dB(A) in daytime i.e 6 a.m to 9 p.m as per rule 7 (1&2) the authority shall take action against violators if the noise level exceeds the ambient noise standards by 10 dB(A) or more against any area/zone.

ECO CEMENTS LTD.

Signature

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013

FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR

ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

REF. NO. ECO/P-ANL/15/171

DATE 27.1.16

A.	NAME AND ADDRESS	ECO CEMENT LTD. VILL: Mahmoodganj At. Kulharia, Durgwati. Dist : Bhabhua
B.	Report to be submitted to	Director
C.	Details of sample	Monitoring of Ambient Noise Level
D.	Monitored by	Eco cement ltd.
E.	Date of monitoring	18.01.16
Sampling location		Time weighed average (TWA) of noise level in dB(A)
1.	Near main gate	62.6
2.	Near CCR	60.2
3.	Near canteen	63.9
4.	Near gypsum storage area	61.3
5.	Near clinker storage area	60.8

The ambient air quality standards in respect of noise as per noise pollution (regulation and control). Rules 2000 industrial area is 75.0 dB (A) for commercial area is 65.0 dB(A). for residential area is 55.0 dB(A) & for silent zone is 50.0 dB(A) in daytime i.e 6 a.m to 9 p.m as per rule 7 (1&2) the authority shall take action against violators if the noise level exceeds the ambient noise standards by 10 dB(A) or more against any area/zone.

ECO CEMENTS LTD.

(Signature)

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1st FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013

FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR

ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

REF. NO. ECO/P-ANL/15/172

DATE 27.2.16

A.	NAME AND ADDRESS	ECO CEMENT LTD. VILL: Mahmoodganj At. Kulharia, Durgwati. Dist : Bhabhua
B.	Report to be submitted to	Director
C.	Details of sample	Monitoring of Ambient Noise Level
D.	Monitored by	Eco cement ltd.
E.	Date of monitoring	23.02.16
Sampling location		Time weighed average (TWA) of noise level in dB(A)
1.	Near main gate	60.2
2.	Near CCR	63.4
3.	Near canteen	63.0
4.	Near gypsum storage area	62
5.	Near clinker storage area	60.5

The ambient air quality standards in respect of noise as per noise pollution (regulation and control). Rules 2000 industrial area is 75.0 dB (A) for commercial area is 65.0 dB(A). for residential area is 55.0 dB(A) & for silent zone is 50.0 dB(A) in daytime i.e 6 a.m to 9 p.m as per rule 7 (1&2) the authority shall take action against violators if the noise level exceeds the ambient noise standards by 10 dB(A) or more against any area/zone.

ECO CEMENTS LTD.



ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1ST FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

Regd. Office :
6D Extn. ; (Chatterjee Lane)
Gardanibagh
PATNA - 800 001 (Bihar)



Laboratory Address :-
01ST FLOOR, RAJHANS NIKETAN,
NEAR CANAL, RUKUNPURA,
BAILEY ROAD,
PATNA - 800 014 (BIHAR)



SHIVA TEST HOUSE

Tel. : 0612 - 2247538/ 2240752 ; TeleFax : 0612 - 2590705
E.mail.: sthpatna1@yahoo.co.in

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RECOGNISED AS ENVIRONMENTAL LABORATORY BY CENTRAL GOVT. UNDER ENVIRONMENT (PROTECTION) ACT 1986,
BY DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref.No. ECL/TR/16-17/104(i) Dt : 23.04.2016 Your PO No. ECO/BHR/SHIVA TEST HOUSE /W.O./RS/2016 Dt : 19.04.2016	
[a] Name and address of the Customer	ECO Cement Ltd. Vill.: Mahmoodganj At : Kulharia Durgawati Dist.: Bhabua (Kaimur)
[b] Report to be submitted to	Director
[c] Details of Sample	Monitoring of Ambient Noise Level
[d] Monitored by	SHIVA TEST HOUSE on 20.03.16
[f] Whether any specific Method of Test has been suggested by the party	No
Sampling Location	Time Weighted Average (TWA) of Day Time Noise Level in dB(A)
1. Near Main Gate	67.8
2. Near CCR	70.2
3. Near Canteen	66.4
4. Near Gypsum Storage Area	68.6
5. Near Clinker Storage Area	62.4
N.B.:	The Ambient Air Quality Standards in respect of Noise as per Noise Pollution (Regulation and Control) Rules 2000 for Industrial area is 75.0 dB(A), for Commercial area is 65.0 dB(A), for Residential area is 55.0 dB(A) & for Silence Zone is 50.0 dB(A) in daytime i.e. 6.00 am to 9.0 p.m. As per Rule 7(1&2) the authority shall take action against violator if the noise level exceed the ambient noise standards by 10 dB(A) or more against any area/zone.



Authorized Signatory
Quality Manager / Dy. Quality Manager

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.

TEST REPORT

Ref. No. ECO/P-/FDE/16/162

Dated: 20.10.2015

(a) Name and address

Eco Cements Ltd.
Vill.: Mahmoodganj.
At. Kulharia, Durgawati.
Dist.: Bhabhua

(b) Report to be submitted to

Director

(c) Details of Sample

Monitoring of Fugitive Emission in Work Zone area

(d) No. & Type of Container

Filter Paper

(e) Date of Sample

20.10.2015

S.N.	Sampling Point	Concentration of Total Dust	Permissible TWA Conc.*	Concentration of Respirable Dust	Permissible TWA Conc.*
		mg/M ³	mg/M ³	mg/M ³	mg/M ³
1	Mill Section Ground Floor	4.8	10.0	1.6	5.0
2	Mill Section 1 st Floor	3.9	10.0	1.1	5.0
3	Mill Section 2 nd Floor	4.1	10.0	1.35	5.0
4	South Side of Mill Section	3.7	10.0	1.8	5.0
5	North Side of Mill Section	2.4	10.0	1.01	5.0

* Permissible time Weighted (TWA) Concⁿ. Based on Silica Content as per Factory Act '1948 Second Schedule.

ECO CEMENTS LTD.

(Signature)

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1st FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013

FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR

ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR. VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-/FDE/16/163

Dated: 18.11.2015

(a)	Name and address	Eco Cements Ltd. Vill.: Mahmoodganj. At. Kulharia, Durgawati. Dist.: Bhabhua			
(b)	Report to be submitted to	Director			
(c)	Details of Sample	Monitoring of Fugitive Emission in Work Zone area			
(d)	No. & Type of Container	Filter Paper			
(e)	Date of Sample	18.11.2015			
S.N.	Sampling Point	Concentration of Total Dust	Permissible TWA Conc.*	Concentration of Respirable Dust	Permissible TWA Conc.*
		mg/M ³	mg/M ³	mg/M ³	mg/M ³
1	Mill Section Ground Floor	3.9	10.0	1.5	5.0
2	Mill Section 1 st Floor	4.1	10.0	1.8	5.0
3	Mill Section 2 nd Floor	2.8	10.0	1.1	5.0
4	South Side of Mill Section	4.7	10.0	1.7	5.0
5	North Side of Mill Section	3.1	10.0	1.3	5.0

* Permissible time Weighted (TWA) Concⁿ. Based on Silica Content as per Factory Act '1948 Second Schedule.

ECO CEMENTS LTD.

Auth. Signature

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1st FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
 FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
 ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-/FDE/16/164

Dated: 22.12.2015

(a)	Name and address	Eco Cements Ltd. Vill.: Mahmoodganj. At. Kulharia, Durgawati. Dist.: Bhabhua			
(b)	Report to be submitted to	Director			
(c)	Details of Sample	Monitoring of Fugitive Emission in Work Zone area			
(d)	No. & Type of Container	Filter Paper			
(e)	Date of Sample	22.12.2015			
S.N.	Sampling Point	Concentration of Total Dust	Permissible TWA Conc.*	Concentration of Respirable Dust	Permissible TWA Conc.*
		mg/M ³	mg/M ³	mg/M ³	mg/M ³
1	Mill Section Ground Floor	4.25	10.0	1.8	5.0
2	Mill Section 1 st Floor	3.1	10.0	1.4	5.0
3	Mill Section 2 nd Floor	3.8	10.0	1.55	5.0
4	South Side of Mill Section	4.0	10.0	1.65	5.0
5	North Side of Mill Section	3.2	10.0	1.2	5.0

* Permissible time Weighted (TWA) Concⁿ. Based on Silica Content as per Factory Act '1948 Second Schedule.

ECO CEMENTS LTD.

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1st FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-/FDE/16/165

Dated: 16.01.2016

(a)	Name and address	Eco Cements Ltd. Vill.: Mahmoodganj. At. Kulharia, Durgawati. Dist.: Bhabhua			
(b)	Report to be submitted to	Director			
(c)	Details of Sample	Monitoring of Fugitive Emission in Work Zone area			
(d)	No. & Type of Container	Filter Paper			
(e)	Date of Sample	16.01.2016			
S.N.	Sampling Point	Concentration of Total Dust	Permissible TWA Concn.*	Concentration of Respirable Dust	Permissible TWA Concn.*
		mg/M ³	mg/M ³	mg/M ³	mg/M ³
1	Mill Section Ground Floor	3.8	10.0	1.4	5.0
2	Mill Section 1 st Floor	2.9	10.0	1.2	5.0
3	Mill Section 2 nd Floor	3.9	10.0	1.35	5.0
4	South Side of Mill Section	3.6	10.0	1.4	5.0
5	North Side of Mill Section	2.2	10.0	1.1	5.0

* Permissible time Weighted (TWA) Concⁿ. Based on Silica Content as per Factory Act '1948 Second Schedule.

ECO CEMENTS LTD.

Auth. Signatory

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1st FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
 FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
 ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

TEST REPORT

Ref. No. ECO/P-/FDE/16/166

Dated: 19.02.2016

(a)	Name and address	Eco Cements Ltd. Vill.: Mahmoodganj. At. Kulharia, Durgawati. Dist.: Bhabhua			
(b)	Report to be submitted to	Director			
(c)	Details of Sample	Monitoring of Fugitive Emission in Work Zone area			
(d)	No. & Type of Container	Filter Paper			
(e)	Date of Sample	19.02.2016			
S.N.	Sampling Point	Concentration of Total Dust	Permissible TWA Conc.*	Concentration of Respirable Dust	Permissible TWA Conc.*
		mg/M ³	mg/M ³	mg/M ³	mg/M ³
1	Mill Section Ground Floor	2.8	10.0	1.1	5.0
2	Mill Section 1 st Floor	3.0	10.0	1.25	5.0
3	Mill Section 2 nd Floor	2.4	10.0	1.04	5.0
4	South Side of Mill Section	3.7	10.0	1.6	5.0
5	North Side of Mill Section	2.9	10.0	1.3	5.0

* Permissible time Weighted (TWA) Concⁿ. Based on Silica Content as per Factory Act '1948 Second Schedule.

ECO CEMENTS LTD.

Auth. Signatory

ECO CEMENTS LIMITED

REGD. OFF.: 1-E, 1st FLOOR, ASHUTOSH APARTMENT, 295/2, GT ROAD, HOWRAH -700013
 FACTORY: PLOT NO. 1644, BHERIYA ROAD, KULHARIA, DURGAUTI, BHABHUA, BIHAR
 ZONAL OFF: 72, JAWAHAR NAGAR EXTN. BHELUPUR, VARANASI-221010 TEL.: 0542-2277074

Regd. Office :
6D Extn. ; (Chatterjee Lane)
Gardanibagh
PATNA – 800 001 (Bihar)



Laboratory Address :-
01ST FLOOR, RAJHANS NIKETAN,
NEAR CANAL, RUKUNPURA,
BAILEY ROAD,
PATNA – 800 014 (BIHAR)



SHIVA TEST HOUSE

Tel. : 0612 – 2247538/ 2240752 ; TeleFax : 0612 - 2590705
E.mail.: sthpatna1@yahoo.co.in



ISO 18001:2007
OHSAS Certified

RECOGNISED AS ENVIRONMENTAL LABORATORY BY CENTRAL GOVT. UNDER ENVIRONMENT (PROTECTION) ACT 1986,
BY DEPTT. OF INDUSTRY, FORESTS & ENVIRONMENT, GOVT. OF BIHAR AND BIHAR STATE POLLUTION CONTROL BOARD

TEST REPORT

Ref.No. ECL/TR/16-17/104(h) Dt : 23.04.2016 Your PO No. ECO/BHR/SHIVA TEST HOUSE /W.O./RS/2016 Dt : 19.04.2016					
[a]	Name and address of the Customer	ECO Cement Ltd. Vill.: Mahmoodganj At : Kulharia Durgawati Dist.: Bhabua (Kaimur)			
[b]	Report to be submitted to	Director			
[c]	Details of Sample	Monitoring of Fugitive Emissions in Work Zone Area			
[d]	Monitored by	SHIVA TEST HOUSE on 20.03.16			
[e]	No. and Type of Container	Filter Paper			
[f]	Items required to be tested	As per request			
[g]	Whether any specific Method of Test has been suggested by the party	No			
[h]	Date of receiving the sample	21.03.16			
S. N.	Sampling Point	Concentration of Total Dust	Permissible TWA Conc ⁿ *	Concentration of Respirable Dust	Permissible TWA Conc ⁿ *
		(mg/M ³)	(mg/M ³)	(mg/M ³)	(mg/M ³)
1	Mill Section Ground Floor	8.21	10.00	3.76	5.00
2	Mill Section 01 st Floor	7.64	10.00	2.81	5.00
3	Mill Section 02 nd Floor	3.22	10.00	1.74	5.00
4	South side of Mill Section	6.54	10.00	2.66	5.00
5	North side of Mill Section	5.48	10.00	1.98	5.00
*Permissible Time Weighted Average (TWA) Conc ⁿ . based on Silica Content as per Factories Act 1948 Second Schedule					



Authorized Signatory
Quality Manager / Dy. Quality Manager

1. This report applies only to sample tested as above.
2. Total Liability of our Laboratory is limited to invoiced amount.
3. Test Report endorsed only the tests and not the product certificate.
4. Test Report can not be reproduced partially or full for legal/court purpose without written permission of the Laboratory.



RAYTHEON TECHNOLOGIES

"GOKULAM" No.41, Teachers' Colony, Vettuvankeni, Chennai - 600 115.
Phone : 044 - 2449 2285, Fax : 044 - 2449 1647. Mobile : (O) + 94440 12056
E-mail : hiraytech@hotmail.com / hiraytech@yahoo.co.in

RT/ECL/CC/1014/15.

31st July, 2015.

CALIBRATION CERTIFICATE

1. Calibration Requested by :: M/s.Eco Cements Limited,
Plot No.1644, Bheriya More,
Kulharia, Durgauti, Bihar-821 105.
2. Description of Item :: Environmental Noise Pollution Monitor.
Make : Raytheon Technologies, Chennai.
Model : RT-5001.
Sl. No.: (120410892).
3. Date of Calibration :: 31.07.2015.

4. Calibration Results:-

Sl.No.	Standard Noise Source.	RT-5001.
1.	50.0db.	50.8db.
2.	60.0 db.	60.7db.
3.	75.0 db.	75.7db.
4.	90.0 db.	90.5db.

(a) Standard Noise Source : Standard Noise Generator duly calibrated to National Standards - Reference Report No.: ETDC(CN)2014-47218 enclosed.

5. Temperature & Humidity during calibration :: 28°C & 49% RH.
6. **Next Calibration due on** :: 30.07.2016.

7. Remarks :: Accuracy is found to be within approved limits
8. Authorised Signatory :: 

Note: * It is mandatory to re-calibrate our Noise Meter once in twelve months as per ISO norms. Next Calibration due date is mentioned above.

ECO CEMENTS LTD.

Authorized Signatory

ELECTRONICS TEST & DEVELOPMENT CENTRE
STQC DIRECTORATE, DEPARTMENT OF ELECTRONICS & INFORMATION TECHNOLOGY
GOVERNMENT OF INDIA

Dr. VSI Estate, Thiruvananthapuram, Chennai - 600 041.
 Tel : 044-2454 3638 / 3691 / 3710 Mobile : 9444971589
 Fax : 044 - 2454 3638 E-mail : cscetdc@gmail.com

CALIBRATION CERTIFICATE

Certificate No. **ETDC(CN)/2014/47218** Page 01 OF 02

DATE OF CALIBRATION **27.08.2014** CALIBRATION DUE BEFORE **27.08.2015**

- 1.1 Service Request No. : **18916/2014-15**
- 1.2 Name & address of the customer : **M/s.RAYTHEON Technologies,
Gokulam,No.41, Teacher's Colony,
Vettuvankenl,Chennai-600 115.**
- 1.3 Description and Identification of item : **ENVIRONMENTAL NOISE POLLUTION MONITOR
MAKE : RAYTHEON TECHNOLOGIES
MODEL : RT-5001
SL NO. : 021206384**
- 1.4 Item Received on : **26.08.2014** 1.5 Condition on Receipt : **FUNCTIONAL**
- 1.6 Calibration Performed at : **CENTRE** 1.7 Calibration Procedure Ref : **MSP/ETC/002**
- 1.8 Environmental conditions : **Temperature 25°C ±2.5°C** RH : 50% ± 15%
- 1.9 Traceability details :

Sl. NO.	STANDARDS USED	CALIBRATION AT/ CERTIFICATE REF	VALID UP TO
1.	SOUND LEVEL CALIBRATOR B&K 4230, (94 dB)	ERTL(E)/CAL/E022/ 0053/04-14, 17.04.2014	17.04.2015
2.	SOUND LEVEL CALIBRATOR QUEST CA 12B (110.2 dB)	ERTL(E)/CAL/E022/ 0052/04-14, 17.04.2014	17.04.2015

ALL MEASUREMENTS ARE TRACEABLE TO THE NATIONAL / INTERNATIONAL STANDARDS

Note 1 :

This calibration certificate refers only to the item calibrated and this certificate shall not be reproduced except in full without written approval from Director, ETDC Chennai.
 The results in the certificate are valid at the time of and under stated conditions of measurements

Calibrated by

T.R.G. Ranganathan
 (T.R.G.RANGANATHAN)



Authorised Signatory

W
 (K.SANKARA SUBRAMANIAN)

ECO CEMENTS LTD

Authorised Signatory / Director

ELECTRONICS TEST & DEVELOPMENT CENTRE
STQC DIRECTORATE, DEPARTMENT OF ELECTRONICS & INFORMATION TECHNOLOGY
GOVERNMENT OF INDIA

Dr. VSI Estate, Thiruvananthapuram, Chennai - 600 041.
 Tel : 044-2454 3638 / 3691 / 3710 Mobile : 9444971589
 Fax : 044 - 2454 3638 E-mail : cscetdc@gmail.com

Certificate No. ETDC(CN)/2014/47218

Page 02 OF 02

2.0 Calibration Results :

SL. PARAMETER NO. /RANGES	*DUC READING	STANDARD READING	EXPANDED UNCERTAINTY ±	ERROR CLAIMED ±	ERROR OBSERVED
2.1 SOUND LEVEL @ 1 kHz					
L	94.5 dB	94.0 dB	0.46 dB	0.5 dB	0.5 dB
H	94.4 dB	94.0 dB	0.46 dB	0.5 dB	0.4 dB
	110.4 dB	110.2 dB	0.52 dB	0.5 dB	0.2 dB

3.0 REMARKS :

1.The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of 95.45%, unless otherwise specified

CALIBRATION LABEL SL. NO.: 9556

* DUC : Device under calibration

Calibrated by

T.R.G. Ranganathan
 (T.R.G. RANGANATHAN)

Authorised Signatory

W
 (K.SANKARA SUBRAMANIAN)
K. SANKARASUBRAMANIAN
 SCIENTIST 'E'
 ELECTRONICS TEST & DEVELOPMENT CENTRE
 STQC DIRECTORATE, Delhi
 MINISTRY OF COMMUNICATIONS & INFORMATION TECHNOLOGY
 GOVERNMENT OF INDIA
 THIRUVANMIYUR, CHENNAI-600 041.

Issued by

P. Dandapani
P. DANDAPANI
 SCIENTIST 'C'
 ELECTRONICS TEST & DEVELOPMENT CENTRE
 STQC DIRECTORATE, Delhi
 MINISTRY OF COMMUNICATIONS & INFORMATION TECHNOLOGY
 GOVERNMENT OF INDIA
 THIRUVANMIYUR, CHENNAI-600 041.

DOCUMENTS LTD

Authorised Signatory / Director

vayubodhan

UPKARAN PRIVATE LIMITED

A-292/1, Okhla Industrial Area,
Phase-1, New Delhi - 110020
Phones : 26810724, 26811696
Tele Fax : 011-26818959
E-mail : vayubodhan@vsnl.net
CIN : U74899DL1987PTC029919

Calibration Report

Customer : Eco Cements Ltd.
Plot No – 1644, Bheriya More
Kutharia Durgauti Bhabhua,
Bihar - 821105

Instrument : VAYUBODHAN STACK SAMPLER VSS1

Serial No. : 186 DTF 13

Date Of calibration : 10/04/2015

Next Calibration due on : 09/04/2016

Certificate No. : 090/2015-16

Details of reference units against which above instrument is calibrated.

Details	Rotameter	Rotameter	Digital Pressure Meter for Manometer
Serial No.	E13B242	E 138244	VMM-2
Model / Type	0 – 50 LPM	0 – 5 LPM	Testo 506
Authority	FCRI	FCRI	FCRI
Certificate No.	CA 1669 1411 509 Dated 30/12/2014	CA 1669 1411 508 Dated 30/12/2014	PSL/1670/1114/P/1171 Dated 26/11/2014
Validity Upto	26/11/2015	26/11/2015	25/11/2015

Details	Digital Pressure Meter For Vacuum Gauge	Vernier Caliper For Nozzle	Stop Watch
Serial No.	VDM - 2	0004998	VSW - 2
Model / Type	Testo 506	0-150 mm	-----
Authority	FCRI	SIIR	ERTL
Certificate No.	PSL/1670/1114/P/1172 Dated 26/11/2014	000046494 dated 22/12/2014	ERTL (N)/ 90 (4) –(2014-15)/A1224 Dated 07/01/2015
Validity Upto	25/11/2015	22/12/2015	07/01/2016

Details	Pyrometer K Type
Serial No.	1217713/VPK-2
Model / Type	K Type
Authority	SIIR
Certificate No.	000045725 dated 05/02/2014
Validity Upto	05/02/2016

(ERTL: Electronics Regional Test Laboratory (North) Delhi, FCRI: Fluid Control Research Institute, Palakkad, Kerala, SIIR: Shriram Institute for Industrial Research, Delhi)

Ambient Temperature : 30 deg C
Accuracy : 2% FSD

For VAYUBODHAN UPKARAN PVT. LTD.

AUTHORIZED SIGNATORY

(Test data results are enclosed herewith)

ECOCEMENTS LTD

Authorised Signatory / Director

vayubodhan

UPKARAN PRIVATE LIMITED

A-292/1, Okhla Industrial Area,
Phase-1, New Delhi - 110020
Phones : 26810724, 26811696
Tele Fax : 011-26818959
E-mail : vayubodhan@vsnl.net
CIN : U74899DL1987PTC029919

Annexure to Certificate No.: 090/2015 -16

TEST READINGS

1. Manometer Testing: M - 186

#	TEST PIECE mm Water	MASTER mm Water	DIFFERENCE
1	16.8	17.5	0.7
2	20.1	20.7	0.6
3	23.4	24.1	0.7
4	35.4	36.4	1.0
5	44.4	45.8	1.4

2. Rotameter (0-3 lpm) Sr. No: D13A974

#	TEST PIECE lpm	MASTER lpm	DIFFERENCE
1	0.5	0.54	0.04
2	1.0	0.98	0.02
3	1.5	1.48	0.02
4	2.0	2.00	0.00
5	2.5	2.48	0.02
6	3.0	3.02	0.02

3. Rotameter (0-30 lpm) Sr. No: D13B011

#	TEST PIECE lpm	MASTER lpm	DIFFERENCE
1	5	5.4	0.4
2	10	10.4	0.4
3	15	15.2	0.2
4	20	20.6	0.6
5	25	25.2	0.2
6	30	30.2	0.2

4. Pyrometer Testing (K type) P - 186

#	TEST PIECE °C	MASTER °C
1	32	32
2	150	150
3	205	205
4	309	309
5	412	412
6	500	500

5. Nozzle

#	NOZZLE SIZE inch	NOZZLE DIA mm
1	1/8	3.14
2	1/4	6.70
3	3/8	9.56

6. Stop Watch. S - 186

#	TEST PIECE min	MASTER min
1	18M:43.44S	18M:43.42S
2	20M:44.61S	20M:44.57S

7. Vacuum Gauge.V - 186 (FOR PM)

#	TEST PIECE mmHg	MASTER mmHg
1	50	50.8
2	100	101.6

8. Vacuum Gauge.V - 186 (FOR GAS)

#	TEST PIECE mmHg	MASTER mmHg
1	50	51.1
2	100	101.4

Prepared by:

Tested by:

ECO CEMENTS LTD
Authorised Signatory / Director

Checked by:

Date : 10/04/2015

vayubodhan

UPKARAN PRIVATE LIMITED

A-292/1, Okhla Industrial Area,
Phase-1, New Delhi - 110020
Phones : 26810724, 26811696
Tele Fax : 011-26818959
E-mail : vayubodhan@vsnl.net
CIN : U74899DL1987PTC029919

Calibration Report

Customer : Eco Cements Ltd.
Plot No – 1644, Bheriya More
Kutharia Durgauti Bhabhua,
Bihar - 821105

Instrument : RESPIRABLE DUST SAMPLER APM 460 BL – 411

Serial No. : 2609 DTE 2013/844 DTB 2013

Date of Calibration : 10/04/2015

Next Calibration due on : 09/04/2016

Certificate No. : 091/2015 -16

Details of reference units against which above instrument is calibrated.

<u>Details</u>	<u>Time Totalizer</u>	<u>Digital Pressure Meter for Manometer</u>
<u>Serial No.</u>	VTT -2	VMM-2
<u>Model / Type</u>	-----	Testo 506
<u>Authority</u>	ERTL	FCRI
<u>Certificate No.</u>	ERTL (N) / 90 (4) – (2014-15) A1223 Dated 26/12/2014	PSL/1670/1114/P/1171 Dated 26/11/2014
<u>Validity Upto</u>	26/12/2015	25/11/2015

<u>Details</u>	<u>Top Loading Orifice</u>	<u>Rotameter</u>
<u>Serial No.</u>	VTL -02	E 138244
<u>Model / Type</u>	0 – 5 LPM
<u>Authority</u>	FCRI	FCRI
<u>Certificate No.</u>	CA 1669 1411 511 Dated 30/12/2014	CA 1669 1411 508 Dated 30/12/2014
<u>Validity Upto</u>	19/11/2015	26/11/2015

(ERTL: Electronics Regional Test Laboratory (North) Delhi, FCRI: Fluid Control Research Institute, Palakkad, Kerala, SIRM : Shriram Institute for Industrial Research, Delhi)

Ambient Temperature : 30 deg C
Accuracy : 2% FSD

For VAYUBODHAN UPKARAN PVT. LTD.

AUTHORIZED SIGNATORY

(Test data results are enclosed herewith)

ECO CEMENTS LTD

Authorized Signatory / Director

vayubodhan

UPKARAN PRIVATE LIMITED

A-292/1, Okhla Industrial Area,
Phase-1, New Delhi - 110020
Phones : 26810724, 26811696
Tele Fax : 011-26818959
E-mail : vayubodhan@vsnl.net
CIN : U74899DL1987PTC029919

Annexure to Certificate No.: 091/2015 - 16

TEST READINGS

ORIFICE

O - 2609

#	TEST PIECE Cu m/min	MASTER mm /H ₂ O	MASTER Cu m/min
1	0.680	24	0.618
2	0.820	39	0.788
3	0.850	42	0.818
4	0.980	55	0.936
5	1.130	70	1.056

Multiplication Factor: 0.944

TIME TOTALIZER

T - 2609

#	TEST PIECE H	MASTER H
1	1.00	1.00


ROTAMETER (0-3 lpm)

Sr. No: C13A501

#	TEST PIECE lpm	MASTER lpm	DIFFERENCE
1	0.5	0.54	0.04
2	1.0	1.02	0.02
3	1.5	1.54	0.04
4	2.0	2.04	0.04
5	2.5	2.52	0.02
6	3.0	3.04	0.04

Prepared by: 

Tested by: 

Checked by: 

Date : 10/04/2015

ECO CEMENTS LTD

Authorized Signatory / Director

vayubodhan

UPKARAN PRIVATE LIMITED

A-292/1, Okhla Industrial Area,
Phase-1, New Delhi - 110020
Phones : 26810724, 26811696
Tele Fax : 011-26818959
E-mail : vayubodhan@vsnl.net
CIN : U74899DL1987PTC029919

Calibration Report

Customer : Eco Cements Ltd.
Plot No – 1644, Bheriya More
Kutharia Durgauti Bhabhua,
Bihar - 821105

Instrument : PITOT TUBE (0.6+0.6 Mtr)

Serial No. : VM - 73

Date of Calibration : 12/04/2015

Next Calibration due on : 11/04/2016

Details of reference units against which above instrument is calibrated.


Details	Digital Pressure Meter	Pitot Static Tube	Digital Pressure Meter for Manometer
Serial No.	VMM-2	S - 11	VPM -5
Model / Type	Testo 506	Pitot Static Tube	Testo
Authority	FCRI	FCRI	FCRI
Certificate No.	PSL/1670/1114/P/1171 Dated 26/11/2014	CAW 2253 1502 149 Dated 12/02/2015	PSL/32/0415/P/0014 Dated 11/04/2015
Validity Up to	25/11/2015	11/02/2016	11/04/2016

(ERTL: Electronics Regional Test Laboratory (North) Delhi, FCRI: Fluid Control Research Institute, Palakkad, Kerala, SIIR: Shriram Institute for Industrial Research Delhi)


TEST READINGS

#	Standard Pitot -Static Probe	Velocity Probe under Calibration	
	Dynamic Pressure h (mm/WC)	Pressure Difference H (mm/WC)	Coefficient K
1	23.0	33.3	0.836
2	33.1	46.3	0.845
3	42.8	58.7	0.854
Average value of the velocity coefficient of the probe: K = 0.854			

Accuracy : 2% FSD
Ambient Temperature : 24 deg C

Prepared By: 

Tested By: 

Checked By: 

For VAYUBODHAN UPKARAN PVT. LTD.

AUTHORIZED SIGNATORY

ECO CEMENTS LTD

Authorized Signatory / Director