



ECL/ BIHAR/ESR/MOEF/FORM-V/R-3

Dated: 16.06.2014

**To,
The Chairman,
Bihar State Pollution Control Board,
Beltron Bhavan, 2nd Floor, Lal Bahadur Shastri Nagar,
Patna- 800023**

Sub. : Environmental Statement Report (FORM-V) of M/s. Eco Cements Ltd. for the period of April 2013 to March, 2014.

Ref : Consent to operate letter No. P/T 3-129/05-T-8437 & P/T2- 26/12-T-8436

Dear Sir,

We are submitting herewith the yearly Environmental Statement Report of **Eco Cements Limited**, Plot No. 1644, Bheriya More, Kulharia, Durgawati, Bhabua, Bihar, Pin code- 821105 for the period of April 2013 to March, 2014
This is for your kind information please.

Thanking you.

Yours Faithfully,

For Eco Cements Ltd.

Rajiv Saini
(G.M. Projects)

Copy to.

1. **The Chief Conservator of Forest(C),
Regional office (Central Region),
Ministry of Environment and Forests,
A-3, Chandrashekharapur, Bhubaneswar – 751 023, Orissa.
Tel: 0674-2301248, 2301213; Fax: 0674-2302432**
2. **The Chairman, Central Pollution Control Board,
Parivesh Bhawan, CBD-cum-Office Complex,
East Arjun Nagar, Delhi - 110 032**

ECO CEMENTS LIMITED

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

Zonal Office : HIG-195, Saileshree Vihar, Chandrasekharapur, Bhubaneswar, Orissa, Email - enquiry@ecocem.in
: 1644, Beriya Road, Kulharia, Durgawati, Bhabua(Kamur), Bihar- 821105.



ENVIRONMENTAL STATEMENTS

FORM-V

(See Rule-14)

The Ministry of Environment & Forest its vide its notification dated 13th March,1992 directed all industries which need to have consent under Water (Prevention & Control of Pollution) Act,1974 and Air (Prevention & Control of Pollution) Act,1981 to file the environmental statement under Environmental Protection Act.1986 every year. This is to be filed for the period ending of March by September every year The format for the same is as follows:-

PART – A

1	Name and address of the Owner / Occupier of the Industry operation or process	Eco Cements Limited, Plot No. 1644, Bheriya More, Kulharia, Durgawati, Bhabua, Bihar, Pin code- 821105
2	Industry Category Primary (S.T.C. Code) Secondary (S.T.C. Code)	Red Category
3	<u>Production Capacity</u> Cement : D. G. Set	1.0 MTPA 125 KVA & 500 KVA
4	Year of Establishment	2012
5	Date of the last Environmental Statement submitted.	19.05.2013

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PART — B

WATER AND RAW MATERIAL CONSUMPTION

WATER CONSUMPTION:

Process	N.A. (As plant is based on dry process technology)
Cooling and Dust Suppression	221.5KL
Domestic	5216 KL

Name of Product	Process water consumption per unit of product Output	
	During Previous Financial Year(2012-13)	During Current Financial Year(2013-14)
PPC Cement	.00123KL/MT OF CEMENT PRODUCTION	.00136 KL/ MT OF CEMENT PRODUCTION

a. RAW MATERIAL CONSUMPTION: (CEMENT PLANT)

Name of Raw Material	Name or Product	Consumption of Raw Material per unit of Output (Cement)	
		During Previous Financial year(2012-13)	During Current Financial year(2013-14)
Clinker	PPC Cement	0.655	0.694
Gypsum		0.047	0.048
Fly Ash		0.298	0.258

b. RAW MATERIAL CONSUMPTION: (D.G. SET)

Name of Raw Material	Name of Product	Consumption of Raw Material per unit of Output(Cement)	
		During Previous Financial Year (2012 – 13)	During Current Financial Year (2013 – 14)
Fuel/ Diesel	Power	D.G Set not operated so far. It is being used in emergency conditions only to operate office lights & computers	29.185 KL

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POWER CONSUMPTION (KWH/T OF CEMENT):

During Previous Financial Year (2012 – 13)	During Current Financial Year (2013 – 14)
53.41 KWH/T	50.21 KWH/T

TOTAL CEMENT PRODUCTION (MT):

During Previous Financial Year (2012 – 13)	During Current Financial Year (2013 – 14)
49026.61 MT	162262.87 MT

PART-C

DISCHARGED TO ENVIRONMENTAL / UNIT OF OUTPUT

Pollutants	Quantity of pollutants Discharged (Mass/Day)	Concentration of Pollutants in Discharges (Mass/ day)	Percentage of variation from prescribed standards with reasons
(a)	Water	As the plant is being operated on dry process technology, no liquid effluent is generated from the plant, Waste water generated from office toilet and mess is disposed-off in a soak pit via septic tank	
(b)	Air	Please refer Annexures - I, II & III	

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PART — D

HAZARDOUS WASTE

(As specified under Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008)

Hazardous Waste	Total Quantity (Ltrs)	
	During Previous Financial Year (April 2012- March 2013)	During Current Financial Year (April 2013-March 2014)
	We are having common authorization for Hazardous Waste Management & Handling for Clinker Grinding Unit (Cement 1.0 MTPA & 125 KVA& 500 KVA D. G. Set)	
a) From Process, Cement manufacturing (Grinding) is based on "Dry Process" No Hazardous waste is generated from the process except used oil which is drained from Machinery / Equipments	Total Quantity Generated in 2012-13 : 280 Ltrs Old Stock : NIL Ltrs Sale out : NIL Ltrs Balance : 280 Ltrs	Total Quantity Generated in 2013-14 : 600 Ltrs Old Stock : 280 Ltrs Sale out : 480 Ltrs Balance : 400 Ltrs
(b) From Pollution Control Facilities	N.A	N.A

PART — E

SOLID WASTE

		Total Quantity	
		During Previous Financial Year(2012-13)	During Current Financial Year (2013-14)
(a)	From Process	Nil	Nil
(b)	From Pollution Control Facility	Dust collected in the Bag Houses and Bag Filters is recycled / reused in process.	
(c)	1) Quantity rejected or re-utilized within the	100%	100%
	2) Sold	Nil	Nil
	3)Disposed	Nil	Nil



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PART — F

Please specify the characterization (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both the categories of wastes:

Hazardous Wastes:

Cement manufacturing is based on "Dry Process". No Hazardous waste is generated from the process except used oil which is drained from machineries /equipments. Used oil is sold to the authorized recyclers/self used for lubrication.

Solid Wastes: - N.A.

PART — G

IMPACT OF THE POLLUTION CONTROL MEASURES ON CONSERVATION OF NATURAL RESOURCES AND CONSEQUENTLY ON THE COST OF PRODUCTION.

Clinker grinding unit is being operated on dry process technology, which is cost effective and environmentally clean technology. The stack emissions from the plant are controlled by equipment like bag houses and bag filters installed at various material transfer points to clean the process and arrest the fugitive emissions. The particulate matter collected in the pollution control equipment is recycled / reused in process and neutralizing the cost of operation of pollution control equipments and hence no cost impact on the production cost.

PART — H

ADDITIONAL MEASURES / INVESTMENTS PROPOSAL FOR ENVIRONMENT PROTECTION INCLUDING ABATEMENT OF POLLUTION

Green belt development and tree plantation is our ongoing process. Every year we are doing new tree plantation to increase the bio-diversity of the area. Up to March, 2014, we have covered 3.08 hectare, around 5528 trees with the survival rate of 93.61 %, this is around 33.12 % green area of the total plant area (9.3 hect.). Additional to this we have planted 1200 tree saplings at Nearby schools, outside plant area, both side of Bheria road to enhance the greenery and prosperity of the area.

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PART — I

ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF ENVIRONMENT.

We have full-fledged Environment Department with three separate cells, one for monitoring, one for maintenance of pollution control equipment and one for green belt development.

Monitoring of stack emission, ambient air quality & ambient noise and water quality is being monitored regularly.

Maintenance department is doing regular checking and scheduled maintenance of all the pollution control devices.

Civil and Personnel & Administration departments are taking care for of House- keeping.

Horticulture section is taking care of tree plantation and green belt development. Every year we are Planting new tree saplings to further increase of green belt.

To support the above, we are enclosing herewith following Annexure:-

- Annexure-1 :** Ambient Air Quality Monitoring Report for the year 2013-14
- Annexure-II :** Stack Emission Level Monitoring Report for the year 2013-14
- Annexure-III :** Ambient Noise level Monitoring Report for the year 2013-14
- Annexure-IV :** Fugitive Dust Emissions in Work Zone Monitoring Report for the year 2013-14

A handwritten signature in blue ink, appearing to read "Jain".

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Annexure-1

Ambient Air Quality Monitoring Report for the year 2013-14

Ambient Air Quality Monitoring Report (All Values in ug/m ³)													
Year: 2013-2014													
S. No.	Location --- ->	Near Main Gate			Near CCR			Near Canteen			Near Gypsum & Clinker Storage		
	Month	PM ₁₀	SO ₂	NO ₃	PM ₁₀	SO ₂	NO ₃	PM ₁₀	SO ₂	NO ₃	PM ₁₀	SO ₂	NO ₃
1	April, 2013	67.3	11.8	23.8	71.6	10.8	12.7	67.8	21.3	19.6	68.5	15.4	21.6
2	May, 2013	70.9	12.3	25.8	73.8	11.4	12.8	70.4	24.3	21.5	64.8	15.9	24.3
3	June, 2013	71.4	12.9	25.8	74.8	11.9	12.9	70.9	25.6	24.3	67.9	16.5	25.8
4	July, 2013	72.8	15.4	19.3	69.7	15.4	19.3	79.5	19.2	17.9	72.8	21.2	22.2
5	Aug, 2013	73.2	19.3	25.2	88.01	18.1	20	79.5	16.1	20.2	77.1	15.6	20.3
6	Sept, 2013	72.2	21.2	27.1	87.02	19.5	24.2	70.6	18.1	21.4	74.2	14.5	21.5
7	Oct., 2013	76.1	19.3	23.4	80.01	19.1	22.5	69.7	15.4	19.3	76.3	17.9	20.7
8	Nov., 2013	72.8	21.2	22.2	75.7	18.4	19.8	67.2	16.5	21.2	72.5	16.4	18.3
9	Dec., 2013	72.7	17.6	23.5	79.7	16.6	20.4	70.4	15.1	19.3	73.6	12.7	18.9
10	Jan., 2014	72.5	16.4	18.3	75.7	16.5	21.2	71.5	21.2	23.4	75.7	15.4	19.3
11	Feb., 2014	67.1	10.5	11.5	71.2	9.3	10.1	60.6	19.0	19.5	63.4	17.0	10.1
12	Mar., 2014	70.1	11.5	10.3	70/9	10.9	12.3	67.3	11.2	19.9	67.2	10.2	9.3
	Average	72.5	16.9	20.1	69.7	16.0	18.9	70.7	15.7	18	72.5	14.5	17.8

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Annexure-II

Stack Emission Level Monitoring Report for the year 2013-2014

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	April,2013	28.4	27.5	28.6	29.7	28.4	31.4	50 mg/Nm ³
2	May,2013	27.9	28.9	25.4	27.9	30.7	33.4	
3	June,2013	34.7	29.7	29.7	28.5	36.5	32.5	
4	July,2013	29.1	28.4	28.4	27.5	34.3	33.7	
5	Aug.,2013	21.2	28.3	25.5	30.4	27.5	34.8	
6	Sept,2013	29.3	28.1	27.1	28.5	23.8	35.3	
7	Oct.,2013	28.4	27.1	25.4	30.4	26.8	33.8	
8	Nov.,2013	29.1	26.1	28.2	29.3	27.8	33.5	
9	Dec.,2013	28.1	27.1	29.1	28.4	24.8	34.4	
10	Jan.,2014	27.1	25.4	28.4	29.4	29.8	31.1	
11	Feb.,2014	36.4	42.8	34.6	28.6	28.4	33.6	
12	Mar.,2014	26.1	28.2	27.7	28.1	27.8	32.7	
Average Values		29.33	29.13	28.33	29.16	30.55	33.52	

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Annexure-III

Ambient Noise level Monitoring Report for the year 2013-14 (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	April, 2013	61.7	62.8	62.8	61.9	61.3	75 dB(A) in day & 70 dB(A) in night
2	May,2013	63.8	67.4	64.8	64.3	59.7	
3	June,2013	64.8	63.9	60.8	64.3	57.6	
4	July,2013	62.8	63.7	59.3	60.2	58.4	
5	Aug.,2013	62.8	62.8	63.7	59.3	61.3	
6	Sept,2013	60.2	58.4	62.8	63.7	59.3	
7	Oct.,2013	61.7	66.3	60	60	60	
8	Nov.,2013	60.7	67.3	63.4	63.4	63.4	
9	Dec.,2013	64.6	69.1	60.2	58.4	58.8	
10	Jan.,2014	65.3	64,0	62.5	62.5	62.5	
11	Feb.,2014	62.8	63.7	59.3	60.2	58.4	
12	Mar.,2014	62.5	61.2	59.9	60.3	61.4	
Average Values		62.6	56.9	61.2	60.9	60.4	

* Day time reckoned from 06 00AM to 10:00 PM

** Night time reckoned from 10: PM to 06:00 AM



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Annexure – IV

Fugitive Dust Emission Level Monitoring Report for the period April 2013 to March 2014

(Concentration of Total Dust in mg/m³)

Sl.No.	Month	Mill Section Ground Floor	Mill Section 1st Floor	Mill Section 1st Floor	South Side of Mill Section	North side of Mill Section
		Total Dust, mg/M ³	Total Dust, mg/M ³	Total Dust, mg/M ³	Total Dust, mg/M ³	Total Dust, mg/M ³
1	April 2013	4.5	3.7	3.9	5.1	4.2
2	May 2013	3.7	4.6	3.8	3.9	2.9
3	June 2013	3.1	4.9	4.1	3.8	3.1
4	July 2013	3.7	3.8	3.9	4.1	2.8
5	Aug. 2013	3.3	4.7	4.4	3.9	2.9
6	Sept. 2013	4.1	5.1	4.2	4.4	3.0
7	Oct., 2013	3.4	3.9	2.9	4.2	2.7
8	Nov., 2013	3.2	3.8	3.1	5.0	3.3
9	Dec., 2013	3.5	4.1	2.8	5.3	3.3
10	Jan., 2014	3.3	3.9	2.9	5.1	3.2
11	Feb., 2014	5.1	4.4	3.0	5.6	4.2
12	Mar., 2014	3.6	4.2	2.7	5.2	3.2
Average		3.7	4.1	3.82	4.67	3.59

Note: Permissible Time Weighted Average (T W A) Concⁿ based on Silica Content as per Factories Act' 1948 Second Schedule are; For Total Dust – 10.00 mg/M³ and Respirable dust 5.00 mg/M³



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