



BIHAR CEMENT PLANT

(A Unit of Shree Cement Ltd.)
Jasoia More, BIADA Industrial Growth Centre,
Post/P.S.- Aurangabad (Bihar)-824101, India
Tel. : 06186-292294, 292295, 292296
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CIN:L26943RJ1979PLC001935

SCL/Bihar/ Env/2016-17/120

Date: 27 September 2016

To,
The Member Secretary,
Bihar State Pollution Control Board
2nd Floor, Beltron Bhawan
Shastri Nagar, Patna (Bihar)
PIN - 800023

**Sub: - Environmental Statement of M/s Bihar Cement Plant (A Unit of Shree Cement Ltd.)
situated at Jasoia Mor, BIADA, Industrial Growth Centre, Aurangabad, Tehsil &
Dist. Aurangabad, Bihar for the period of 2015-16**

Ref: - Emission Consent Order No. PT3-05/14 T - 5606 Patna, Dated - 29/05/2015.
Discharge Consent Order No. P/T 3-17/14 - T - 5685, Dated - 29/05/2015.

Sir,

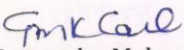
Kindly refer to above subject matter and reference letter. We are submitting herewith the Environmental Statement of M/s Bihar Cement Plant (A Unit of Shree Cement Ltd.) situated at Jasoia More, BIADA, Industrial Growth Centre, Aurangabad, Tehsil & Dist.-Aurangabad (Bihar), for the period of April 2015 to March 2016.

This is for your kind information.

Thanking you.

Yours faithfully,

For BIHAR CEMENT PLANT
(A Unit of Shree Cement Ltd.)


(Gyanendra Mohan Khare)
Unit in charge

Copy to:

1. The Additional Principal Chief Conservator of Forest (APCCF), Ministry of Environment, Forests & Climate Change, Regional Office, (ECZ), Bungalow No. A - 2, Shyamali Colony, Ranchi - 834002.

**Environmental Statement for Clinker Grinding Unit of M/s Bihar Cement Plant
(A Unit of Shree Cement Ltd.), situated at Jasoia Mor, BIADA, Industrial
Growth Centre, Aurangabad, Tehsil & Dist. – Aurangabad, Bihar.
From: April-2015 to March-2016**

PART – A

1.	Name and address of the Owner / Occupier of the Industry operation or process	M/s Bihar Cement Plant (A Unit of Shree Cement Ltd.), Jasoia Mor, BIADA, Industrial Growth Centre, Aurangabad, Tehsil & Dist. Aurangabad, Bihar
2.	Industry Category Primary (S.T.C. Code) Secondary (S.T.C. Code)	Red Category
3.	Production Capacity	3.6 Million TPA Cement
4.	Year of Establishment	2014
5.	Date of the last Environmental Audit Report submitted	28 th September 2015

PART – B

WATER AND RAW MATERIAL CONSUMPTION

(I) **WATER CONSUMPTION:**

Process	:	N.A. (As plant is based on dry Process technology)
Cooling	:	11505 KL
Spraying	:	32800 KL
Domestic	:	12557 KL

Name of Product	Process Water Consumption per Unit of Product Output (Cement)	
	During Previous Financial Year	During Current Financial Year
Cement	0.0598 KL/ MT of Cement	0.0252 KL/ MT of Cement

(II) RAW MATERIAL CONSUMPTION: (CEMENT PLANT)

Name of Raw Material	Name of Product	Consumption of Raw Material Per Unit of Output (Cement)	
		During Previous Financial Year	During Current Financial Year
1. Clinker	Cement	0.5729	0.507
2. Gypsum		0.0494	0.051
3. Fly Ash		0.3063	0.264
4. Slag		0.0714	0.178

RAW MATERIAL CONSUMPTION: (HAG)

Name of Raw Material	Name of Product	Consumption of Raw Material per unit of Output (Cement)	
		During Previous Financial year	During Current Financial year
1. Coal/ Pet coke/Fuel	Heat	0.0070	0.0047

RAW MATERIAL CONSUMPTION: (D.G. SET)

Name of Raw Material	Name of Product	Consumption of Raw Material per unit of Output (Ltrs / KWH)	
		During Previous Financial year	During Current Financial year
1. Diesel	Power	0.540	1.645

(III) POWER CONSUMPTION (KWH/T OF CEMENT):

During Previous Financial Year	During Current Financial Year
Cement Mill	Cement Mill
37.63	33.88

(IV) TOTAL CEMENT PRODUCTION (MT):

During Previous Financial Year	During Current Financial Year
Cement Mill (MT)	Cement Mill (MT)
644268	1761456

(V) TOTAL D.G. POWER PRODUCTION (KWH):

During Previous Financial Year	During Current Financial Year
4096	6907

PART – C
DISCHARGED TO ENVIRONMENTAL / UNIT OF OUTPUT

Pollutants	Quantity of Pollutants Discharged	Concentration of Pollutants in Discharge (Mass/Value)	Percentage of variation from prescribed standard with reasons
(a)	Water	Plant is being operated on dry process technology, hence no liquid effluent is generated from the Clinker Grinding Unit. The waste water generated from the office toilet, mess and GH is being disposed off in soak pit via septic tank.	
(b)	Air	Please refer Annexure – 1, 2 & 3	

PART – D
HAZARDOUS WASTE

(As specified under Hazardous Wastes (Management, Handling & Transboundary Movement) Rules amended up to 2011)

Hazardous Waste	Total Quantity (Ltrs.)	
	During Previous Financial Year	During Current Financial Year
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 = 0 KL Old stock = Zero Total disposal= Zero Balance quantity= Zero	Total quantity generated = 0 KL Old stock = Zero Total disposal= Zero Balance quantity= Zero
(b) From Pollution Control Facilities	N.A.	N.A.

PART – E
SOLID WASTE

		Total Quantity	
		During Previous Financial Year	During Current Financial Year
(a)	From Process	N.A	Nil
(b)	From Pollution Control Facility	Dust collected in the Bag Houses and Bag Filters are recycled to the system.	
(c)	1) Quantity rejected or re-utilized within the unit	100%	100%
	2) Sold	Nil	Nil
	3) Disposed	Nil	Nil

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 the categories of wastes:

(I) E-Waste:-

E-Waste was not generated during year 2015-16.

(II) Used Oil:-

Used oil collected from Machineries / Equipment is stores in closed drums and will sold out to the CPCB authorized recycler.

(III) Bio-Medical waste:-

Bio-medical waste generated in small quantity at dispensary is deeply buried in pit after proper treatment (Annexure-IV).

(IV) Battery waste:-

Battery Waste has not been generated during year 2015-16. In future it will be returned to the supplier or will be sold to the authorized recycler.

(V) Hazardous Waste Utilization:-

Cement manufacturing is based on “Dry Process”. No Hazardous waste is generated from the process except used oil.

(VI) Solid Wastes utilization: - N.A.

PART – G

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

M/s Bihar Cement Plant, A Unit of Shree Cement Limited (Grinding Unit) is being operated on dry process technology, which is cost effective and environmentally clean technology. The advantage of dry process is also in fuel economy. 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 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. Till date we have developed plantation in 74786 M². , with around 8500 trees & shrubs, this is around 27.5 % green area of the total plant area.

PART – I
ANY OTHER PARTICULATES FOR IMPROVING THE QUALITY OF
ENVIRONMENT.

1. 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.
2. Monitoring of stack emission and ambient air and water quality is being done regularly.
3. Maintenance department is doing regular checking and scheduled maintenance of all the pollution control devices.
4. Civil and Personal & Administration departments taking care for of Housekeeping.
5. Horticulture Section is taking care of tree plantation and green belt development. Every year we are growing new tree plantation.

On support of above, we are enclosing herewith following:-

- Annexure-I : Ambient Air Quality Report (SPM, SO₂ and NO_x)
Annexure-II : Stack Emission Report
Annexure-III : Noise level monitoring data
Annexure-IV : Bio-Medical waste generated quantity

ANNEXURE-I**AMBIENT AIR QUALITY ($\mu\text{g}/\text{m}^3$) FOR YEAR 2015-16**

Location Month	Plant boundary toward main gate / NH - 98				Plant boundary toward Reclaimer area				Plant boundary toward Water harvesting pond			
	PM10	PM2.5	SO2	NOx	PM10	PM2.5	SO2	NOx	PM10	PM2.5	SO2	NOx
Apr-15	53	31	6	26	58	36	5	21	51	24	5	11
May-15	50	33	5	19	52	33	7	18	46	34	4	12
Jun-15	48	35	7	27	46	31	6	21	44	38	4	11
Jul-15	54	28	7	22	65	22	7	23	44	22	4	12
Aug-15	65	32	5	14	53	23	7	19	58	24	5	11
Sep-15	67	40	7	21	64	36	7	20	53	34	5	11
Oct-15	60	35	11	15	57	35	8	15	51	34	8	17
Nov-15	63	41	14	25	55	37	9	21	59	35	10	15
Dec-15	59	40	12	17	58	38	5	16	53	34	6	16
Jan-16	61	39	8	14	62	39	5	12	56	35	4	14
Feb-16	56	38	6	12	58	37	7	14	54	35	7	12
Mar-16	50	32	6	14	60	30	7	16	57	39	11	16
Average	57	35	8	19	57	33	7	18	52	32	6	13

ANNEXURE-II**STACK EMISSION LEVEL (mg/Nm^3) FOR YEAR 2015-16**

Sr. No.	Month	Pollution Control Measures	PM (mg/Nm^3)
1	April-15	Bag House	20
2	May-15	Bag House	21
3	June-15	Bag House	23
4	July-15	Bag House	24
5	August-15	Bag House	24
6	September-15	Bag House	25
7	October-15	Bag House	27
8	November-15	Bag House	20
9	December-15	Bag House	20
10	January-16	Bag House	22
11	February-16	Bag House	25
12	March-16	Bag House	31
Average		Bag House	24

ANNEXURE-III**NOISE LEVEL Leq-dB (A) FOR YEAR 2015-16**

S. No.	Monitoring Location Month	Plant boundary toward main gate / NH - 98		Plant boundary toward reclaimer Area		Plant boundary toward Water Harvesting Pond	
		Day Time	Night Time	Day Time	Night Time	Day Time	Night Time
01.	Apr-15	67.5	60.2	62.8	58.8	60.6	55.3
02.	May-15	64.5	60.5	61.8	56.5	60.2	54.8
03.	Jun-15	63.2	60.1	62.1	58.1	60.7	58.3
04.	Jul-15	64.8	59.7	63.5	58.3	62.4	57.6
05.	Aug-15	63.3	57.8	62.5	58.6	61.1	58.6
06.	Sep-15	63.5	57.1	62.1	58.4	60.8	56.8
07.	Oct-15	62.8	51.8	61.8	58.1	60.7	54.8
08.	Nov-15	64.1	53.6	61.6	56.1	60.9	49.3
09.	Dec-15	64.2	52.8	62.7	58.6	61.2	51.2
10.	Jan-16	62.6	56.4	62.5	52.4	61.6	49.7
11.	Feb-16	63.8	53.1	62.1	56.6	61.5	52.8
12.	Mar-16	65.6	52.3	56.3	51.1	54.3	47.2
Average		64	56	62	57	61	54

ANNEXURE-IV**Bio-Medical waste quantity generated during 2015-16**

S. No.	Month	BIOMEDICAL WASTE GENERATION & DISPOSAL (Kg)
1	April-15	0.200
2	May-15	0.180
3	June-15	0.210
4	July-15	0.190
5	August-15	0.210
6	September-15	0.180
7	October-15	0.230
8	November-15	0.180
9	December-15	0.210
10	January-16	0.200
11	February-16	0.180
12	March-16	0.220
	TOTAL	2.390