BHILAI JAYPEE
CEMENT LIMITED

REGISTERED

BJCL/Bhilai/ Envt. / 29

27th July, 2015

The Member Secretary
Chhattisgarh Environment Conservation Board,
Commercial Complex,
Chhattisgarh Housing Board Colony,
Kabir Nagar
RAIPUR (CG) - 492099

Sub : Environmental Statement for the Financial Year 2014- 15.

Dear Sir,

We are herewith submitting the Environmental Statement for the financial year ending 31st March, 2015 in **Form V** in Compliance of Environment (Protection) Rules 1992.

Thanking you

Yours faithfully

A.C. Srivastava (Unit Head)
Authorized Signatory

क्षेत्रीय कार्यालय
छत्तीसगढ़ पर्यावरण संरक्षण मण्डल
5/32 [illegible] Bhilai, Dist. Durg (C.G.)
27/7/2015

For Bhilai **Jaypee Grinding Plant, Bhilai**
(A Unit of Bhilai Jaypee Cement Limited)

CC: Regional Officer : For information please
Regional Office, C.E. Conservation Board,
Bhilai, Durg (CG)

O/C

JAYPEE GROUP

Plant : BSP Premises, Slag Yard Road (Opp. Sector-4, NMDH) Bhilai - 490 001, Distt.-Durg(Chhattisgarh) Exchange-0788-4022255/56,Fax:0788-4022216
Regd. Office : Post Babupur, Satna (M.P.) Pin - 485112 Ph. :+91(7672) 415500L 415600
Head Office : 'JA House', 63 Basant Lok, Vasant Vihar, New Delhi - 110 057 (India) Ph. : +91 (11) 26141540, 26147411 Fax : +91 (11) 26145389, 26143591

A JV of SAIL & JAIPRAKASH ASSOCIATES LIMITED

M/S. BHILAI JAYPEE GRINDING PLANT, BHILAI
(A UNIT OF BHILAI JAYPEE CEMENT LIMITED)
(JOINT VENTURE WITH SAIL)

ENVIRONMENTAL STATEMENT

For the Financial year ending
31st March 2015

M/S. BHILAI JAYPEE GRINDING PLANT, BHILAI

(A UNIT OF BHILAI JAYPEE CEMENT LIMITED)

(JOINT VENTURE WITH SAIL)

ENVIRONMENTAL STATEMENT

(For the Financial year ending 31st March 2015)

Contents

BHILAI JAYPEE GRINDING PLANT,BHILAI

F O R M - V

(See Rules 14)

Environmental Statement for the Financial Year ending 31st March 2015

P A R T – A

(i) Name and address of the owner/ Occupier of the industry Operation or Process.	:	**BHILAI JAYPEE GRINDING PLANT** BSP Premises, Slag Yard Road (Opp. Sector – 4, NMOH) BHILAI, DURG -490001
Occupier	:	Shri Ravinder Mohan Ji
(ii) Industry Category Primary (STC Code) Secondary (SIC Code)	:	Secondary (SIC Code)
(iii) Production Capacity	:	2.2 Million Tonnes /Annum of Portland Slag Cement
(iv) Year of establishment	:	June 2010
(v) Date of the last Environmental Statement Submitted	:	2nd September, 2014

PART – B

WATER AND RAW MATERIALS CONSUMPTION

(i) Water Consumption, m^3 / day (Avg.)

Process	: NIL
Cooling	: 54.7 (Based on 365 Days)
Domestic	: 141.7 (Based on 365 Day)

Name of Product	**Process Water Consumption per unit of product output**	
	During the previous financial year 2013-14	**During the current financial year 2014-15**
Portland Slag. Cement	0.0108 m^3/T of Cement Water used for cooling purpose. Only (Excluding Domestic)	0.0164 m^3/T of Cement Water used for cooling purpose only (Excluding Domestic)

II -Raw Materials Consumption

Name of the Raw Materials	Name of product	Consumption of raw material per unit of output	
		During the Previous financial year 2013-14	During the Current financial year 2014-15
	Portland Slag Cement	MT/ MT of Cement Prodn.	MT / MT of Cement Prodn.
1. Clinker		0.45741	0.45132
2. Gypsum		0.02900	0.02780
3. Slag		0.51359	0.52088
4. Coal		0.01402	0.01608

PART- C

POLLUTION DISCHARGED TO ENVIRONMENT/UNIT OF OUTPUT

(Parameter as specified in the consent issued)

(a) Water

Pollutants	Quantity of Pollutants Discharged (mass /day)	Concentration of Pollutants Discharges (mass/volume)	%of variation from prescribed standards with reasons

- NOT APPLICABLE -

As the plant is being operated by dry process technology. Therefore, no Industrial Waste Water is being generated from the plant process. Water is used only cooling purpose which is recycled back into the system.

Domestic Waste Water generated from the office toilet is small quantity and the same is being disposed off into the Sewage line of Bhilai Steel Plant which finally is treated in their Sewage Treatment Plant.

(b) AIR.			
Pollutants	**Allowable standards**	**Concentration of pollutants discharged in $\mu g/m^3$**	**Percentage of variation from prescribed Standards with reason**
1-Ambient Air		**Min. Max. Avg.**	
I. Switch Yard			
i) S.P.M.	500µg/m³	184.0 - 277.0 (232.0)	Well within the norms
PM_{10}	100µg/m³	56.0 - 85.0 (72.6)	Well within the norms
$PM_{2.5}$	60µg/m³	21.8 - 30.1 (25.8)	Well within the norms
ii) SO_2	80µg/m³	6.4 - 10.2 (8.3)	Well within the norms
iii) NOx	80µg/m³	15.6 - 24.3 (21.8)	Well within the norms
iv) CO	4mg/m³	- BDL-	Well within the norms
II. Coal Yard		**Min. Max. Avg.**	
i) S.P.M.	500µg/m³	163.0 - 315.0 (232.0)	Well within the norms
PM_{10}	100µg/m³	47.9 - 84.0 (68.9)	Well within the norms
$PM_{2.5}$	60µg/m³	15.5 - 29.8 (24.3)	Well within the norms
ii) SO_2	80µg/m³	6.7 - 11.6 (8.4)	Well within the norms
iii) NOx	80µg/m³	19.1 - 24.6 (21.5)	Well within the norms
iv) CO	4mg/m³	- BDL-	Well within the norms
III. Wagon Tippler		**Min. Max. Avg.**	
i) S.P.M.	500µg/m³	256.0 - 371.0 (320.0)	Well within the norms
PM_{10}	100µg/m³	74.4 - 84.0 (79.4)	Well within the norms
$PM_{2.5}$	60µg/m³	23.2 - 36.0 (29.7)	Well within the norms
ii) SO_2	80µg/m³	6.9 - 12.0 (8.7)	Well within the norms
iii) NOx	80µg/m³	19.9 - 27.5 (22.9)	Well within the norms
iv) CO	4mg/m³	- BDL-	Well within the norms
IV. Auto workshop		**Min. Max. Avg.**	
i) S.P.M.	500µg/m³	197.0 - 343.0 (277.0)	Well within the norms
PM_{10}	100µg/m³	60.0 - 85.0 (78.2)	Well within the norms
$PM_{2.5}$	60µg/m³	22.6 - 38.5 (30.0)	Well within the norms
ii) SO_2	80µg/m³	6.7 - 12.0 (8.8)	Well within the norms
iii) NOx	80µg/m³	19.9 - 25.9 (22.7)	Well within the norms
iv) CO	4mg/m³	- BDL-	Well within the norms

(b) AIR.			
Pollutants	Allowable Standards	Concentration of Pollutants Discharged in mg/Nm^3	Percentage of variation from prescribed Standards with reason
Stack Emission. Stack of Bag house Cement Mill No.1&2 S.P.M.	50mg/Nm^3	Min. Max. Avg. 17.2 – 24.3 (22.4)	Stack emissions values are well within the prescribed limits stipulated by SPCB in Consent
Stack of packing plant Bag Filter No-1 S.P.M.	50mg/Nm^3	12.3 – 22.1 (17.2)	Stack emissions values are well within the prescribed limits stipulated by SPCB in Consent
Stack of packing plant Bag Filter No-2 S.P.M.	50mg/Nm^3	11.3 – 26.5 (17.5)	Stack emissions values are well within the prescribed limits stipulated by SPCB in Consent
Stack of packing plant Bag Filter No-3 S.P.M.	50mg/Nm^3	12.1 – 24.8 (18.0)	Stack emissions values are well within the prescribed limits stipulated by SPCB in Consent
Stack of packing plant Bag Filter No-4 S.P.M.	50mg/Nm^3	16.6 – 21.9 (19.4)	Stack emissions values are well within the prescribed limits stipulated by SPCB in Consent

PART – D

Hazardous Waste

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

Hazardous Waste	Total Quantity (kg)	
	During the previous Financial year 2013 - 14	During the Current Financial year 2014-15
(a) From Process Spent Oil (Used Oil)	22800 liter.*	9900 liter
(b) From pollution Control Facilities	Nil.	Nil.

*Remark:- 22.88 KL used oil disposed off to registered re-cycler subsequent to receipt of Authorization dated 06.11.2012 as per Hazardous Waste (Management Handling & Trans Boundary Movement) Rules,2008 and amended Rules, 2010.

PART – E

SOLID WASTE

	Total Quantity in MT	
	During the previous Financial year 2013 - 14	During the Current financial year 2014-15
(a) From Process	32.20	15.81 Tons (Burst Bags)
(b) From Pollution control Facilities	NIL	NIL
(c) (1) Quantity recycled or reutilized Within the unit	All the collected swept solid waste is reused in the the process	
(2) Sold	32.20	15.81 Tons (Burst Bags)
(3) Disposed	NIL	NIL

Dust collected in the Bag House and Bag filters are Recycled back into the system

PART – F

Please specify the characterization (in term of composition and quantum) of Hazardous as well as solid waste and indicate disposal practice adopted for both these categories of wastes.

HAZARDOUS WASTE.

Cement manufacturing is based on "Dry Process" technology. No Hazardous waste is generated from the process except used oil which is collected from machineries. Presently used oil is stored in 200 liter capacity drum and kept in secured area / place within the factory premises as per the Hazardous Waste Management Rules. After getting the authorization of Hazardous Waste (Authorization No. 40/HO/HSMD/CECB/ RAIPUR Dated 06/11/2012) from the Board, the disposal of the same is being done as per Hazardous Waste (Management, Handling and Transboundary Movement) Rules , 2008 as amended Rules,2010. The Used Oil disposed off to the Authorized recyclers approved by the CECB for processing.

SOLID WASTE.

Burst bags are collected, stored in specific area and sold to recyclers.

Dust collected in the Bag House and Bag filters are recycled back into the system.

Part-G

Impact of pollution abatement measures taken on conservation of natural resources and on the cost of production.

Bhilai Jaypee Grinding Cement manufacturing plant is based on "Dry Process" technology, which is cost effective and environmentally clean technology. The plant is equipped with state–of-the art Air Pollution Control devices so that emission level maintained well below stipulated norms as prescribed in the consent Total 34 Nos. of Bag filters including Bag House has been installed in process to control the Stack emission and various material transfer points to control the fugitive dust emissions as per CPCB guideline. Entire collected dust is also recycle/ reutilized into the system.

Fully mechanized system developed for handling of raw materials. All raw materials handling is being done by fully covered conveyor belt. Water sprinkling on road is being carried out as and when required to control the fugitive dust emission which is generated during movement of vehicle.

Good housekeeping practice is being done by

1. Raw coal is stored in covered shed
2. Clinker and cement is being stored in covered silo.
3. Gypsum is stored in covered shed.
4. Regular road sweeping is being carried out.
5. Scheduled maintenance and monitoring of Pollution Control Devices is being done.

PART – II

Additional measures/ investment proposal for environmental protection including abatement of pollution, and Prevention of Pollution.

The Company had under taken various project, some of which are completed during the financial year 2014 – 15 for further abatement of Pollution and improving the environment. Company has installed and commissioned Continuous Online Ambient Air Quality Monitoring Systems and Continuous Online Emission Monitoring System.

The ecology of the area has improved due to Green Belt development programme undertaken by the plant during monsoon time and some suitable time.

For the pollution control measures the company incurred a cost of Rs. 81.37 per ton of Cement production during 2014-15. This does not include capital investment for installation of Pollution Control devices.

ADDITIONAL MEASURES

1. Permanent water sprinkler and water shower near wagon tippler area has been provided for dust suppression.
2. Made a Pucca Platform for parking of cars and two wheeler inside plant to avoid fugitive emission during movement.
3. Constructed the check dam near coal storage area to check the spillage of coal in the drain

4. Skirt guard of some part of coal conveyer belt replaced for more improvement in fugitive emission.
5. Damaged & poor functioning of nozzles of Water sprinklers in different places at feeding belts are changed which are helping to control fugitive emission.
6. Development of Green Belt in phase manner (Plantation work)

PART-I

Any other particulars for improving the quality of the Environment

1. The company has planted about 691 trees during the year 2014-15 around the factory area, Kutela Bhata, Sector-6 etc under green belt development programme. Total area covered about 3.65 ha.
2. Periodical review of compliance of Environmental law through Environmental Meeting forum within plant premises is being done every month.
3. Awareness programme and Tree plantation work carried out on World Environment Day.
4. Awareness programme carried out on International Ozone Day.
5. Replacement of 629 Numbers bag, 3 Numbers solenoid valve and 94 Numbers Cages from Bag Filters & Bag Houses for controlling of dust emission effectively.
6. Water Sprinkling is being done on regular basis for dust suppression.
7. Made a Pucca Platform for parking of Cars and two wheeler inside plant to avoid fugitive emission during movement.