DALLA CEMENT FACTORY

(A UNIT OF JAIPRAKASH ASSOCIATES LIMITED)

ENVIRONMENT STATEMENT REPORT

[2012- 13]

DALLA CEMENT FACTORY
(A UNIT OF JAIPRAKASH ASSOCIATES LTD.)

DALLA, ROBERTSGANJ,

DISTRICT-SONEBHADRA (UP)

Ph. 05445-265778, 265801, 265802

Fax- 05445-265776

INTRODUCTION

The Jaypee group is a blue chip diversified industrial conglomerate with a four decade experience of continuous growth and diversification in the fields of Engineering and Construction, Cement, Hydropower, Thermal Power, Wind Power, Express ways & High ways, Hospitality & Tourism, Real Estate, Hospitals, Minerals and Mining, Transmission, Information Technology, Education and sports. Achieving perfection, creating excellence, transforming every challenge into an opportunity and reaching new milestones in its stride has been the hallmark of Jaypee Group. Catering to India's growing cement consumption, the cement division of Jaiprakash Associates Limited (JAL) has 12 state-of-art fully computerized integrated cement plants (ICPs), 10 Grinding units and 2 blending units with an aggregate capacity of **37.30 MTPA** with Captive Power Plant totalling **612 MW**. Foreseeing and assessing the cement requirement in India, JAL is poised to achieve **39.90 MTPA** annual cement manufacturing capacity with 20 cement plants across India, along with Captive power plants totalling 702MW by this year end.

Jaiprakash Associates Limited (JAL) has acquired the Dalla Cement Factory from erstwhile Uttar Pradesh State Cement Corporation Limited (UPSCCL) as successful bidder ordered by Hon'ble High Court of Judicature, Allahabad. The unit has production capacity of 2.0 MTPA clinker, 0.5 MTPA cement, 27 MW power along with six nos. captive limestone mines. Environmental Clearance accorded by MoEF, GoI on 29/09/2009. The cement plant is located at Dalla, Thesil-Robertsganj, Dist-Sonebhadra (U.P.)

"FORM – V"

(See rule 14)

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING WITH

31ST MARCH 2013

PART – A

(I)	Name & Address of the Owner / Occupier of the Industry Operation or Process	Dalla Cement Factory (Unit of Jaiprakash Associates Limited) Dalla, Sonebhadra (UP)
(II)	Industry Category	Red Category and large(Cement Manufacturing)
(III)	Production Capacity	2 .0 MillionTPA (Clinker) 0.5 MillionTPA (Cement) 27 MW Power
(IV)	Year of Establishment	2009
(V)	Date of last Environmental Statement Submitted	29/09/2012

PART – B

Water & Raw Material Consumption

A. Water

(i) Water Consumption (m^3/Day)

Cooling - **1046**

Domestic - **2019**

(ii) Consumption per unit of production

Name of the Product	Cooling Water Consumption per unit of Product Output	
	During the Previous Financial Year (2011-12)	During the Current Financial Year (2012-13)
Clinker	**0.65 KL/MT of Clinker**	**0.56 KL/MT of Clinker**
Electricity	**0.00037 KL/ Kwh**	**0.00022 KL/ Kwh**

B. Raw Material Consumption

Name of the Raw Material	Name of Product	Consumption of Raw Material per Unit Product Output (MT/MT of CLINKER, CEMENT& MT/Kwh of ELECTRICITY)	
		During the Previous Financial Year (2011-12)	During the Current Financial Year (2012-13)
Coal	Electricity	**0.97**	**0.89**
Limestone	Clinker	1.477	1.475
Iron ore		0.023	0.012
Coal		0.1547	0.147
Clinker	Cement	0.6905	0.6858
Gypsum		0.0329	0.0326
Fly ash		0.2766	0.2816

Name of the Product	During Previous Financial Year (2011-12)	During Current Financial Year (2012-13)
Clinker (MTPA)	2.00	2.00
Cement (MTPA)	0.39	0.29
Electricity (Lack Kwh)	1890.02	1714.598

PART - C

Pollutant Discharged To Environment / Unit of Output

(Parameters as specified in the consent issued)

S. No.	Pollutants	Quantity of Pollutants Discharged (Mass / day) (tonne/day)	Concentrations of Pollutants in discharged (Mass / Volume) (mg/Nm^3)	Percentage of variation from prescribed standard with reasons
(A)	**Water**	**Zero Discharge**		
(B)	**Air**			
	(i) Stack emission			
	(a) Line-1			
	Raw mill –ESP	0.265	40.00	Within permissible limits
	Coal Mill -Bag Filter	0.021	40.25	
	Cooler –ESP	0.165	41.08	
	(b) Line-2			
	Raw Mill -Bag House	0.464	37.42	
	Coal Mill -Bag Filter	0.054	37.50	
	Cooler- ESP	0.445	38.17	
	(c) Cement Mill			
	Cement Mill -1	0.007	37.58	
	Cement Mill -2	0.007	36.67	
	(d) CPP			
	Boiler ESP	0.496	44.83	

PART – D

(As specified under Hazardous waste / Management and Handling rules, 1989 as Amended -2008)

Hazardous Waste Generation		During the Previous Financial Year (2011-2012)	During the Current Financial Year (2012-13)
(a)	From process Used Oil Waste Oil	 28.3 KL 11.55 KL	 22.26 17.43
(b)	From pollution control facilities	Nil	Nil

PART – E

Solid Wastes

Solid Waste		Total Quantity	
		During the Previous Financial Year(2011-12)	During the Current Financial Year (2012-13)
(a)	From Process	No solid waste is generated from the cement manufacturing process.	No solid waste is generated from the cement manufacturing process.
(b)	From Pollution Control facilities	All material recycled in the process.	All material recycled in the process.
(c)	(i) Qty. recycled or reused Within the unit. (ii) Sold (iii) Disposed	(i) Fly ash - 108202 MT (ii) 700.1 MT Used refractory brick sold to recycler. (iii)Nil	(i) Fly ash- 84148 MT (ii) 120.82 MT Used refractory brick sold to recycler. (iii)Nil

PART – F

PLEASE SPECIFY THE CHARACTERISATIONS (IN TERMS OF COMPOSITION AND QUANTUM) OF HAZARDOUS AS WELL AS SOLID WASTES AND INDICATE DISPOSAL PRACTICE ADOPTED FOR BOTH THESE CATEGORIES OF WASTES.

Hazardous waste: All used Oil and waste oil generated from the different sections of plant is being collected in close drums barrels and then stored at Hazardous waste storage room that has been made as per Hazardous Waste (Management, Handling & Tran boundary Movement) Rule, 2008. These hazardous wastes are sold out to authorized recyclers i.e. M/S Continental Petroleum Limited, Rajasthan and M/s. SV Enterprises, Kanpur.

Solid waste: Solid waste generated from process operations is especially through spillage or emissions of the various raw materials or the finished product i.e. Clinker & cement. This spilled material is being recycled into the process and used refractory sold to recycler. Hence, there is no solid waste generated during the process of cement manufacturing.

PART – G

IMPACT OF THE POLLUTION ABATEMENT MEASURES TAKEN ON CONSERVATION OF NATURAL RESOURCES AND ON THE COST OF PRODUCTION.

1) We have installed water meters at all transfer points. Treated STP water is being fully used in gardening and dust suppression. At present the unit has attained 'Zero-discharge" status as per the condition of Environmental Clearance.

Catchment area of two no. water ponds is enlarged for rain water harvesting of 1.5 Lac M3 and 1.0 Lac M3.This water is being used not only for raising water table in surrounding vicinity but also for water sprinkling in the cement process for reduction of fugitive dust and suppression of dust emission along with Green Belt Development.

2) Fly ash is generated from our 27MW CPP of around 450 TPD. Due to its Pozzolonic property we make use of fly-ash in our cement making process. Maximum amount of fly-ash is being used in our unit. Balance amount is transported in closed Bulkers to our sister concern Chunar Cement Factory, Chunar, Mirzapur for utilization in cement manufacturing for 100% utilization of fly-ash.

3) Tree plantation is an integral part to the environment management plan of the unit. The plantation drive is being carried out throughout year under the supervision of our senior executives. We have the green belt coverage area of more than 33% inside the plant and colony premises. It has also been noted that the real green belt development programme has been started in the remaining open spaces of the premises. The species planted are selected on the basis of their dust tolerance, low water requirement. In fact an ecologically sound green development plan is in progress to improve the aesthetic environment within the plant. Plantation details of this year are shown in the following table.

4) We have the automatic road sweepers for sweeping of roads resulting in reduction of fugitive dust emission. All the swept materials are being used in our process.

5) We have the 800 KLD Sewage Treatment Plant (STP) to treat the domestic waste water. Our STP is highly efficient to treat the waste water and bring down the treated water quality within permissible limit. The treated water is reused for dust suppression, horticulture and green belt development. The manures collected in Sludge Drying Bed is used for green belt development.

Particulars	**Plant species**	**Plantation during the year 2012-13**
Plant boundary	Ashok, Guava, Nimbu, Mango, Amla,Teak Jamun	1243
Near By Plant Areas	Neem, Mango	1635
Total		**2878**

6) We have the highly efficient Air Pollution Control Devices to bring down the point source emission as per the prescribed standard. All our APCS devices are designed to restrict particulate matter emission level within 50mg/Nm^3.

7) Environment Cell is having an Environment Monitoring van used for various environment monitoring at buffer zone.

Part-H

ADDITIONAL MEASURES / INVESTMENT PROPOSALS FOR ENVIRONMENTAL PROTECTION INCLUDING ABATEMENT POLLUTION, PREVENTION OF POLLUTION.

Additional measures the unit has taken for environment protection is as under:

- ✓ Installation of water meters at all points of water distribution system to evaluate the domestic and industrial water consumption on daily basis and accordingly optimize the wastage of water in a best possible way.
- ✓ Installation of cold fog system at Limestone and Coal Handling Plant with transfer points in significant reduction of fugitive dust emission for conducive environment.
- ✓ Reduction in consumption of fuel as well as fugitive dust emission for transportation of Limestone from Mines to Crusher by reducing travel distance from 7 KM to 1 KM by installing Limestone Crusher.
- ✓ System for firing of Pet Coke as well as incineration of combustible waste like plastic and used oil is in place for its utilization in cement kiln.
- ✓ Arrangement of closed belt conveyors and covered shed for coal storage of 13000 tone.
- ✓ Treated water from STP is reused in colony & plant through well connected gravity flow water line for green belt development and sprinkling on roads.
- ✓ A massive tree plantation is in progress inside as well as outside of the plant premises. Also small patches of gardens are developed inside the plant premises wherever the open space is available to improve the plant beautification.
- ✓ All internal roads are either concreted or blacktopped to reduce the fugitive dust emission inside the plant premises.
- ✓ Water sprinkling arrangement is provided in coal yard area through aerial pipe line for dust suppression.
- ✓ Arrangement of Vermi-Compost system for colony waste debris and plant leaf litters for waste management.

Part-I

Energy and resource Management

Dalla Cement Factory has now stabilized its production processes. Fact is that cement production is highly energy intensive and resource exploitive. It is too critical for cement industries to manage these two aspects, which are rather key issues of environment management in general. However we have already started using pet-coke in cement kiln.

Regarding energy efficiency various energy conservation projects are undertaken and successfully implemented, they leads to significant saving of energy.

Energy Conservation during preceding years

Sl. No.	**Energy**	**2010-2011**	**2011-2012**	**2012-13**
1	Specific heat consumption	744	722	716
2	**Electric Energy Consumption**	**2010-2011**	**2011-2012**	**2012-2013**
	a) Kwh/Tone for clinkerisation	76.99	74.54	71.66
	b) Kwh/Tone cement for Grinding and packing	32.86	31.31	30.39
Total Kwh / Tone cement produced		85.99	82.81	81.14

(S.Katiyar)

Vice- President

For Dalla Cement Factory,

(A Unit of Jaiprakash Associates Limited)