

FORM – V
(See rule 14)

Environmental statement for the financial year ending the 31st March 2009

PART – A

1.	Name and address of the Owner/Occupier of the Industry, operation of the process.	:	BINANI CEMENT LIMITED, (THANDIBERI LIMESTONE LIME) BINANIGRAM, PINDWARA, DIST. SIROHI, RAJASTHAN, PIN – 307 025
2.	Industry category	:	RED, LARGE
3.	Production Capacity	:	1.065 Million TPA
4.	Year of establishment	:	APRIL 1997
5.	Date of the last environmental statement submitted	:	31.07.2008

PART – B

Water and Raw Material Consumption

(I) Water consumption in m3/day.

Process	:	Nil
Cooling	:	10.0 (Run Days considered as 304)
Domestic	:	2.84 (Run Days considered as 365)

Name of products	Process Water consumption per unit of product output	
	During the previous financial year	During the current financial year
	(1)	(2)
Crushed Limestone	0.0067 KL/Ton of Limestone	0.0049 KL/Ton of Limestone

(II) Raw Material consumption

S. No.	Name of raw material	Name of products	Consumption of raw material per unit output (Per Tonne)	
			During the previous financial year	During the current financial year
1.	Uncrushed Limestone	Crushed Limestone	1.0000 MT/MT of crushed limestone	1.0000 MT/MT of crushed limestone

PART – C

Pollution discharged to environment/unit of output generated (Parameter as specified in the consent issued)

S. No	Pollutants	Concentration of Pollutants in discharge			Percentage of variation from prescribed standards with reason.
a.	Water (Industrial)	Effluent generated from Mine Workshop* (Average Values for the year 2008-09)			No variation. All parameters are within the prescribed limits stipulated by concerned regulatory authorities.
		Parameter	Prescribed Std. (mg/Ltr.)	Observed Value (mg/Ltr.)	
		pH	5.5 to 9.0	7.91	
		TSS	100	58.00	
		Oil & Grease	10	4.59	
		Fluoride	2.0	0.75	
		Iron	1.0	0.28	
	Water (Domestic)	Domestic sewage treatment plant in colony (Common for Cement Plant, CPP & Mines) (Avg. values for the year 08-09)			No variation. All parameters are within the prescribed limits stipulated by concerned regulatory authorities.
		Parameter	Prescribed Std. (mg/Ltr.)	Observed Value (mg/Ltr.)	
		pH	5.5 – 9.0	7.61	
		TSS	100	59.41	
		BOD	30	17.14	
		COD	250	95.41	
b.	Air (Stack emission) Particulate matter	Stack**	Prescribed Std. (mg/Nm3.)	Observed Value (mg/Nm3.)	No variation. All parameters are within the prescribed limits stipulated by concerned regulatory authorities.
		Crusher Bag Filter	75	24.86	

* Workshop is common for both Amli & Thandiberi Mines, ** Crusher is also common for both the mines.

PART - D

Hazardous Wastes

(As specified under Hazardous Wastes (Management and Handling) Rules, 2003) & recently amended as Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008

S. No.	Hazardous Waste	Total quantity	
		During the previous financial year	During the current financial year
a.	From Process		
(i)	Used Oil & Grease (Kg)	Nil*	Nil*
b.	From pollution control facility	No any	No any

* No workshop in Thandiberi Mine. Common workshop is shared by both the mines & the quantity of hazardous waste is reported for the entire premises.

PART – E

Solid Waste

Sl. No.	Solid Waste	Total quantity	
		During the previous financial year	During the current financial year
a.	From Process (Screen Reject)	Nil	Nil
b.	From pollution control facility	Nil	Nil
c.	Quantity recycled or reutilized	NA	NA

*Screen reject is scientifically stacked in benches (in Mines) & plantation is done to prevent erosion.

PART – F

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

(i) Hazardous Waste (generated from the entire premises):

Description of Haz. waste	Qty. of waste generated during the year (Ltr.)	Qty. of waste disposed during the year (Ltr.)	Accumulated quantity (as on 01.01.09)	Disposal Method	Equipment / Facility Used
Used/ Spent Oil	21095* (Ltr.)	19717* (Ltr.)	5067 (Ltr.)	Burnt in cement Kiln	Mixed with coal & fired in Kiln

* Total quantity generated from all the components (Cement Plant, CPPs & Mines)

(ii) Other Solid Waste (generated from the entire premises):

Description of waste	Qty. of waste generated during the year (MT)	Disposed (MT)	Accumulated quantity (as on 01.04.09)	Disposal Method	Equipment / Facility Used
Screen Reject (Mines)	413619	413619**	0	*	Earmarked dump yards
Fly Ash (purchased)	323973	333223	0	Used in PPC production	Fly Ash feeding system & Cement Mill
Fly Ash (from CPP)	33125.78	33125.78	0	Used in PPC production	Fly Ash feeding system & Cement Mill
Bottom Ash (from CPP)	2780.04	2780.04	0		
STP Sludge	10.0	10.0	0	Composting	Used in plantation
Household (Kitchen) waste	182.50	182.50	0	Dumped in pits for Composting	Dumpsite maintained by local municipality
Paper Waste	10.0	10.0	0	Used in Kiln as fuel	Kiln
Metal Scrap	1121.02	1121.02	0	Sold to recyclers	-
Rubber Scrap	16.04	16.04	0	Sold to recyclers	-

Torn PP Bags & other misc. Plastic Waste	57.43	57.43	0	Sold to Mfr./ authorized recyclers	-
Refractory Waste	871.90	871.90	0	Sold to authorized recyclers	-
E-waste (Old computers, printers, circuit boards etc.)	25 (Nos)	25 (Nos)	0	Buy Back system	-
Spent Batteries	95 (Nos.)	95 (Nos.)	0	Buy Back system	-
Filter bags scrap	1400 (Nos)	1400 (Nos)	0	Sold thru tender (for recycling)	-
Cotton waste	6.38	6.38	0	Used in Kiln as fuel	Kiln
Wooden Scrap	69.68	69.68	0	Sold thru Tender (for recycling /reuse)	-

****Screen reject is scientifically stacked in benches (in Mines) & plantation is done to prevent erosion.**

PART – G

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

The common Crusher, located in the Amli Mine, is equipped with Bag Filter designed to control the emission (SPM) level below 50 mg/Nm³ through the stack attached to it.

In addition, we are successfully managing the ambient SPM level to below the prescribed levels by way of putting up Jet Pulse Filters at each of the transfer points, covered belt conveyors, water sprinklers at crusher hopper & Limestone conveyors and regular water spraying on reject dumps & haul roads used for vehicular movement.

All these systems have proved to be very effective in arresting the dust thus preventing the precious natural minerals from getting lost in the atmosphere.

Additionally, over the years, the company has undertaken various energy efficiency improvement measures & process modifications which helped to significantly reduce the overall energy consumption to enable us to achieve our ultimate goal of GHG emission reduction and positive contribution towards reversing the effects of Climate Change.

Thus, the pollution abatement & other energy conservation practices adopted by the company save precious raw material /minerals/ product and greatly help in conserving valuable natural resources.

PART – H

Additional measurers/ investment proposal for environmental protection including abatement of pollution / prevention of pollution.

- (a) Flooring of reject screen house (at Limestone Crusher) during the year 09-10.
- (b) Modification and performance improvement of colony STP by Aug'09.
- (c) Plantation of 5000 nos. of tree saplings in 09-10.
- (d) Construction of 2 more water harvesting structures in 09-10.
- (e) Replacement of 70W Street lights with CFL to reduce energy consumption and increase the illumination level by the end of 09-10.

PART – I

Any other particulars for improving the quality of the environment.

Details of steps taken for improvement of environment during 08-09

Environment Management System improvement

- 1. Recent review of Management policy to exert greater emphasis on conservation of natural resources in particular water and non renewable energy sources.
- 2. Periodical review of EMS including compliance of environmental laws through periodic Management Review & Quality forums
- 3. Quarterly EHS inspection of all the sections including the Contractors' Premises throughout the plant & mine premises.
- 4. Awareness promotion through various environmental competitions, workshops, presentations etc. on world environment day, Earth Day, Bio-diversity Day, Ozone Layer Conservation Day, Mine Environment Week etc.

(i) AIR QUALITY

(A) Improvement in Ambient Air Quality through effective control on fugitive dust emission

- (a) **Reinforced concreting** of limestone crusher hopper area resulting in effective control on air born fugitive dust due to vehicular movement.
- (b) Provided **MS sheets** in place of rubber curtain for effective control on dust entering the crusher house from limestone hopper.
- (c) Provided arrangement for **Water Spraying at apron feeder** 211 AC 1 to control dust emission.
- (d) **Replacement of Asbestos Cement sheets** with GI sheets at Mines Workshop & Crusher Hopper sheds.
- (e) **Covering of 1 Km long downhill belt conveyor** 221 BC1 and conveyor 211 BC2 with hood / shed to prevent the fines being airborne during limestone transportation. Covering of conveyors also reduces ozonization of the rubber of the belt.

(B) Reduction in point source emission

Replacement of **898 Nos. of filter bags** in bag filter & JPF to effectively control the dust emission during crusher operation & material transport for improving the air quality at Limestone Crusher.

(ii) WATER QUALITY

(a) Reduction in water consumption /tonne of Limestone

Specific Water consumption for last 3 years:

Consumption	2006-07	2007-08	2008-09
Water (M3 per ton of Limestone)	0.0059	0.0067	0.0049

Approx. **27%** of reduction in water consumed /T of limestone produced from the mine.

(b) Augmenting the groundwater resources

Constructed 6 more water harvesting structures (Check dams) in Amlu Mines during the year 08-09 thus increasing the water harvesting potential to 1.61 MCM @ an annual average rainfall of 705 mm.

(c) Sewage Treatment Plant

Modification/ renovation of colony STP to further improve its performance and efficiency.

(iii) GREEN BELT DEVELOPMENT

5010 tree saplings were planted in Plant, Colony & mines during **08-09** covering an area of around 5 hectares. Thus the total nos. of surviving plants at the end of 08-09 is **116726** out of which **35473** plants exist in Amlu & Thandiberi Mines with an average survival rate of around 93%.

Company has planned to plant **5000 tree saplings** in Plant, Colony & mines during the year 2009-10.

(iv) REDUCTION IN NOISE LEVEL

Increase in use of Nonel Down the hole delays (DTH) results in true bottom initiation of the explosive charge and introduction of Nonel Trunk line delays (TLDs) results not only in hole-to-hole delay but also avoidance of detonating cord on the surface touching the loose ground. As an end result we could reduce ground vibration, noise, fly rock and dust generation in blasting.

(v) INCREASE IN INDUSTRIAL WASTE UTILIZATION

Optimum utilization of sub-grade limestone to further reduce the consumption of additives from **0.30% (07-08 level) to 0.20%** in raw mix preparation.