

RC/MKD/ENVT/AUDIT/2011

DATE : 27.07.2011

The Member Secretary,  
The Karnataka State Pollution Control Board,  
No.49, 4th & 5th Floor, Parisara Bhavana,  
Church Street,  
Bangalore - 560 001.

Dear Sir,

Sub : Submission of ENVIRONMENTAL STATEMENT of Rajashree Cement for  
the year 2010-11

Please find enclosed herewith a copy of Environmental Statement ( Form – V) for the  
Cement plant, Captive Power Plant and Captive Limestone Mines of Rajashree  
Cement for the year 2010-11. It may kindly be noted that our Company has been  
Certified for EMS ISO-14001 since May-1998, ISO 9001 since December 1999, SA –  
8000 since April 2004 and OHSAS-18001 since April 2004 by Det Norske Veritas  
(DNV).

This is for your kind information and records please

Thanking You

Yours faithfully

For Ultra Tech Cement Ltd.

Unit: Rajashree Cement Works

D C Joshi

Head Of Dept. ( QC/ RMH/ Envt.)

Encl. : As above

Copy to :

The Regional Officer,  
The Karnataka State Pollution Control Board,  
First Floor, Gulbarga Development Authority Building  
Near Sardar Vallabhbhai Patel Chowk.  
Dist: Gulbarga , Karnataka State

## ENVIRONMENTAL STATEMENT FORM -V

(See rule 14)

**Environmental statement for the financial year ending with 31st March 2011**

### PART- A

- I. Name and address of the Owner / Occupier of the Industry
- Shri S K Gupta  
Unit Head & Executive President  
Ultra Tech Cement Ltd  
Unit: Rajashree cement Works  
Adityanagar,  
Malkhed Road – Gulbarga Dist  
Pin – 585 292

Operation or Process.

- II. Industry Category Primary- ( STC Code) Secondary ( STC Code)
- III. Production Category: Cement Plant –4.2 MTPA ( Clinker 4.7 MTPA) & Limestone 6.7 MTPA, Captive Thermal Power Plant 58.2 MW & DG 5.8 MW
- IV. Year of establishment : 1984
- V Date of last Environmental statement submitted: 28.06.2010

### PART – B

#### Water and Raw Material Consumption:

i. Water Consumption in m<sup>3</sup>/day.

Subject	During the previous financial year 2009-10	During the current financial year 2010-11	Remarks
Process Cooling *	5748 m <sup>3</sup> /day	5833 m <sup>3</sup> /day	The total water consumption increased due to higher captive power generation, lesser cement and clinker production.
Colony (Domestic)	1820 m <sup>3</sup> /day	1861 m <sup>3</sup> /day	The increase is due to construction activities at colony ( New quarters and Guest House etc.) and increase in population of floating work men during planned shutdown.

\* Process cooling includes Cement plant and captive power plant of 58.2 MW.

Name of the product	Process water consumption per unit of products		
	During the previous financial year 2009-10	During the current financial year 2010-11	Remarks
Portland Cement	0.1781 m3 / Ton	0.1120 M3/ton	The specific total water consumption is decreased slightly.
Based on Clinker	0.1312 m3/ Ton	0.0818 M3/ Ton	
Based on Limestone raised	0.0223 m3/ton	0.0238 m3/ton	The specific total water consumption is increased slightly.
Based on Captive Thermal Power Generation	4.143	4.200	

\*\* Water consumption includes domestic, horticulture, cement plant, captive limestone mines and captive power plant of 58.2 mw.

Subject	During the previous financial year 2009-10	During the current financial year 2010-11
Total Water Consumption in M3/Year**	2886549	2938059
Water Consumption in Cement Plant M3/Year	527590	325902
Water Consumption in Mines M3/Year	123859	129835
Water Consumption in TPP M3/Year	1570698	1802966
Cement Production (MT)	2960982	2908968
Clinker Production (MT)	4019150	3982175
Limestone raised (MT)	5543536	5460309
TPP power Generation in MWh	379126	429178

**ii RAW MATERIAL CONSUMPTION:**

Name of raw materials *	Name of products	Consumption of raw material per unit ton of product	
		During the previous financial year 2009-10	During the current financial year 2010-11
Lime stone	Raw meal	1.3627	1.3612
Hematite	Raw meal	0.0231	0.0093
S.Laterite	Raw meal	0.0002	0.0198
Al.Laterite	Raw meal	0.0814	0.0739
Flyash Raw Mix	Raw meal	0.0133	0.0105
Red Mud	Raw meal	---	0.0043
Gypsum (Chemical)	Cement	0.0294	0.0295
Flyash –OPC	Cement	0.00829	0.01625
Flyash –PPC	Cement	0.264	0.2608
Coal ( Kiln)	Clinker	0.137	0.1386
Coal (TPP) (ton/MWH)	Power	1.0786	1.1062
Explosives (Ton of L/s raised/ kg of explosive)	Limestone	9.708	10.62

\* Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw materials used.

**PART – C****Pollution discharged to environment / unit of output  
(Parameter as specified in the consent issued)**

Pollutants	Quantity of pollutants discharged (mass / day)	Concentration of pollutants discharged (mass / volume)	Percentage of variation from prescribed standards with reasons.
a) Water	There is no water discharge. The treated water of 600-1000 m <sup>3</sup> /day is used for Horticulture, process and dust suppression.	The details of analysis is attached.	No variation. Meeting the requirements of prescribed standards.
b) Air (SPM stack)	5.148 tons/day	74.82 mg/Nm <sup>3</sup> ( Avg)	The Stack emission level is well within the statutory limit of 150 mg/Nm <sup>3</sup> .
c)AAQ SPM (Micrograms/m <sup>3</sup> )	---	Annual Avg. SPM 78.49 RSPM 43.66	The level of Ambient Air Quality is well within the statutory limit.

**PART –D****HAZARDOUS WASTES**

(as specified under the Hazardous Wastes / Management and Handling Rules – 1989).

Hazardous Waste	Total Quantity (Kg.)	
	During the Previous Financial Year ( 2009-10)	During the Current Financial year ( 2010-11)
1) From Process	41086 Kgs. Of used oil	16230 kgs of used oil from Cement plant, DG, Power Plant, Mines and maintenance (Hazardous Waste authorization received from SPCB)
2) From Pollution Control facilities.	Nil	Nil

## PART-E

### SOLID WASTES

Solid Wastes	Total Quantity (Kg)	
	During the previous financial year 2009-10	During current financial year 2010-11
a. From Process	No wastage. Collection of solid waste from Pollution control equipments, process etc. is fed back into the system and reutilized.	No wastage. Collection of solid waste from Pollution control equipments, process etc. is fed back into the system and reutilized.
Refractory bricks	650090 kgs	336440 kgs
M S Scrap	1394183 kgs	880010 kgs
Flyash and Bedash	162387000 kgs generated	191104000 Kgs generated
b. From Pollution Control Facilities	1806589 kgs	1879196 kgs
c. Quantity recycled or re-utilized within the unit	370872000 kgs of flyash and bed ash utilized from RC TPP and RTPS-Raichur	388648000 kgs of flyash utilized from RC TPP and RTPS-Raichur .

## PART-F

Please specify the characteristics (in terms of concentration and quantity) of hazardous as well as solid waste indicate disposal practice adopted for both these categories of wastes.

Hazardous waste (Used oil ) disposing to Authorized party M/s Reliance Barrel Supply Co, qty 16230 kgs of used oil from Cement plant, Power Plant, Mines and maintenance (Hazardous Waste authorization received from KSPCB) is disposed.

Collection of solid waste from Pollution control equipments, process etc. is fed back into the system and reutilized.. Road sweeping machine and vacuum cleaning machine is employed to collect the material. Total Flyash 388648000 kgs is utilized from RC TPP and RTPS-Raichur . Refractory bricks and Mild steel scrap generated is disposed to party for further use/ recycling.

## **PART – G**

Impact of the Pollution Control measures taken on conservation of natural resources and consequently on the cost of production.

1. For development of green belt, full time horticulturists have been appointed.
2. Plantation of trees throughout the plant and premises including mines has been done. (Area covered as green belt is approximately 40 % of total area.). 17880 trees of mixed variety planted at Mines bunds during the year.
3. Lawns and gardens have been developed in the factory and colony premises. Water fountains have been provided at number of locations.
4. Water sprinklers are in continuous use in mines to suppress dust at drilling, excavation, loading, unloading, transporting, crushing, etc.
5. Fruit bearing trees (Mango, papaya, Anar, Sapotas, badam, guava, sitaphal etc.) are being grown in the premises.
6. Huge water pits are developed for storing water in the used mining pits for collection during rainy season and utilization for plant, mines dust suppression etc.
7. A separate Environment Section is existing to ensure regular monitoring of pollution, pollution control equipments and to meet present and future requirements as required for EMS- ISO – 14001 that includes statutory compliance.
8. Water spray system has been introduced at various critical material transfer points in the cement plant area.
9. Isolation of waste water in TPP and separate storm water drain for colony and plant constructed.
10. After treatment of domestic sewage and waste water from plant recycled water is utilized for Dust suppression, Gas conditioning tower, cement mill cooling, horticulture activities etc. Excess water is pumped to used Mines pit for storing and using for dust suppression etc.
11. Flyash handling has been given top priority in view of nuisance on roads including RTPS. Construction of additional fly ash silo for transfer of fly ash by railway wagon is completed. This will reduce the impact to environment.
12. Rain water harvesting project at colony for diverting the rain water to Mines is completed.

13. Alternate fuel co-processed along with coal during 2010-11 is given in table. Trial co-processing done for RBI Ink sludge and Spent wash from Shri Renuka Sugars. Obtained CPCB and KSPCB permission to use of alternate fuels like ETP sludge, RBI ink sludge, tyre chips, paint sludge, waste oil, agrowaste etc.

Waste utilized in 2010-11

Sl No	Waste Category	Qty in MT	Industry
1	26.2	177.4	BASF ETP Sludge from M/s BASF India Ltd, Mangalore 575030
2	21.1	99.2	RBI Ink sludge from M/s Bharatiya Reserve bank Note Mudran(P) Ltd, Note Mudran Nagar, Mysore 570003
3	21.1	56	Paint sludge from M/s TTP Technologies Pvt Ltd. Bangalore & Tumkur
4	NA	14	Tyre Chips
5	NA	171.5	Spent Wash
6	NA	75	Cured resins & Green Mesh from M/s S.E Composites Limited, Udpi

**PART- H**

Additional measures / investment proposal for environmental protection including Abatement of pollution.

1. Improvement at Unit II & III Clinker hopper top area and Unit I, II and III CSP top.
2. Further greenery development at Mines by planting 35000 Nos trees of mixed variety.
3. Further reduction in water consumption by suitable action plan for implementation by further utilizing waste water within the plant.
4. Actions for utilizing alternate fuels- BASF's ETP Sludge, agricultural waste etc. by using alternate fuel feeding system at Unit III . Spent Wash feeding system at all Kilns.
5. Development of green belt at Line IV project area. Subway, Mines etc.
6. Awareness and implementation of EMS – ISO – 14001 for improvement in Environment by systematic activities, audits and corrective actions.
7. Top priority for WCM (World Class Manufacturing) activities for improvement in Safety, Environment, production, quality and sustainable development.

8. Biogas plant installation at colony is proposed for gasification by using kitchen waste around 300 to 400 kg/day.
9. Focus on usage of solar energy and wind energy is given by study.
10. Alternate Fuel storage facility is upgraded as per requirement.

## **PART- I**

### **MISCELLANEOUS:**

Any other particulars in respect of environmental protection and abatement of pollution.

WCM (World Class Manufacturing) is used as a tool for better house keeping, good maintenance practice and assist in control of pollution. Task force for Energy conservation and Waste water utilization is also formed by the management for conservation of natural resources.

These task forces have been asked to prepare the report of their observation and send their comments to the management to take care of any technical deficiencies and further developments to be carried out to maintain the clean environment.

As part of Corporate Social responsibility, the Group company has become signatory to Cement sustainability Initiative under World Business Council for Sustainable development for CO<sub>2</sub> emission monitoring and reduction.

Environmental clearance for additional integrated Cement Plant is obtained. Expansion of the Cement Plant [Cement (4.2 MTPA to 8.7 MTPA); Clinker (4.7 to 9.0 MTPA)], Captive Power Plant (58.2 to 190 MW) and Captive Limestone Mines (6.7 MTPA to 13.4 MTPA) at Aditya Nagar, P.O. Malkhed Road, District Gulbarga, Karnataka by M/s Rajashree Cement