

ADITYA BIRLA



UltraTech

UTCL/KCW/Plant/Env.Statement/2011-12/94

Date: 22/09/2011

To,  
**The Member Secretary**  
Rajasthan State Pollution Control Board,  
4, Institutional Area, Jhalana Doongari  
JAIPUR-302 004 (Rajasthan)

**Sub: -Submission of ENVIRONMENTAL STATEMENTS for the year 2010-11 of Cement Plant and Captive Power Plant by M/s UltraTech Cement Ltd (Unit- Kotputli Cement Works), Distt- Jaipur (Raj).**

**Ref: - Consent to Operate for Plant, Letter No: F (Tech)/Jaipur (Kotputli) 4(1)/2008-09/5479-5481 vide Order No. 2009-10/ Group-III/175, dated 11/02/2010.**

Dear Sir,

This has with reference to above subject matter, Please find enclosed herewith Environmental Statement (Form-V) for the year 2010-11 of our Cement Plant & Captive Power Plant, situated at/near village- Mohanpura, Tehsil- Kotputli, Distt- Jaipur(Rajasthan).

This is for your kind information and record please.

Thanking you,  
Yours faithfully,

**For UltraTech Cement Ltd,**  
**(Unit- Kotputli Cement Works)**  
Formerly known as Grasim Industries Ltd

**(V.B.Ekre)**  
**Sr.Vice President (Tech)**

**Encl:** As above.

Copy to: -  
Regional Officer, Rajasthan State Pollution Control Board, Opp. Road No. 5,  
Vishwakarma Industrial Area, Sikar Road, Jaipur- 302 013(Rajasthan).

**UltraTech Cement Ltd.**

(Unit : Kotputli Cement Works)

FACTORY : Village - Mohanpura, Tehsil - Kotputli, Distt. Jaipur - 303 108, Tel / Fax : 01421 - 288664 / 288665  
JAIPUR OFFICE : 505, 5th Floor, Sanghi Upasana Tower, C-98, Subhash Marg, C-Scheme, Jaipur - 302 001, Tel. : 0141 - 2378979/80/81  
MUMBAI OFFICE : Ahura Centre, 1st Floor, Mahakali Caves Road, Andheri (E), Mumbai - 400 093, Tel. : 022 - 66917400, Fax : 022 - 28244960 / 70  
REGISTERED OFFICE : Ultratech Cement Ltd., 'B' Wing, Second Floor, Ahura Centre, Mahakali Caves Road, Andheri (East), Mumbai - 400 093



# ENVIRONMENTAL STATEMENT

## FORM-V

(See Rule 14)

Environmental Statement for the financial year ending the 31<sup>st</sup> March 2011

### PART – A

(i) Name and address of the owner / occupier of the industry operation or process.	M/s UltraTech Cement Limited (Unit- Kotputli Cement Works) Village- Mohanpura, Tehsil- Kotputli, Distt: Jaipur-303 108 (Raj.)
(ii) Industry category Primary - (STC Code) Secondary - (SIC Code)	Red Category
(iii) Production capacity	<b>Cement Plant:</b> 4.0 MTPA Cement & 4.0 MTPA Clinker. <b>Power Plant:</b> 46.0 MW Captive Power
(iv) Year of establishment.	2007
(v) Date of the last environmental statement submitted	24/09/2010

### PART – B

#### Water and Raw Material Consumption

##### (I) Water consumption m<sup>3</sup>/d

	Cement Plant	Power Plant
Process	N.A (as plant is based on dry process technology)	378 m <sup>3</sup> /day
Cooling	841 m <sup>3</sup> /day	
Domestic		482 m <sup>3</sup> /day

Name of Products	Process water consumption per unit of product output	
	During Previous Financial Year (2009-10)	During Current Financial Year (2010-11)
OPC and PPC Cement	1.06 m <sup>3</sup> /tonne	0.20 m <sup>3</sup> /tonne
Power	0.000916 m <sup>3</sup> /Kwh	0.000655 m <sup>3</sup> /Kwh

**(II) Raw Material Consumption:**

Name of raw material	Name of product	Consumption of raw material per unit of output (Cement & Power)	
		During Previous Financial Year (2009-10)	During Current Financial Year (2010-11)
<b>Cement Plant:</b>			
1. Limestone	Cement	1.146	1.122
2. Laterite		0.032	0.028
3. Red ochre		0.048	0.059
4. Gypsum		0.054	0.057
5. Fly Ash		0.120	0.143
6. Coal		0.097	0.093
<b>Power Plant:</b>			
1. Water	Power	0.000916 m <sup>3</sup> /Kwh	0.000655 m <sup>3</sup> /Kwh
2. Coal/ Pet coke		0.000670 Tonne/ Kwh	0.000506 Tonne/Kwh

**(III) Power Consumption:**

		During Previous Financial Year (2009-10)	During Current Financial Year (2010-11)
<b>Cement Plant</b>	Kwh/Tonne of Clinker	56.32	51.63
	Kwh/Tonne of Cement	52.72	41.22
	<b>Total</b>	<b>109.04</b>	<b>92.85</b>
<b>Power Plant</b>	Kwh/ Kwh of Power	0.1729	0.1479

**(IV) Production:**

		During Previous Financial Year (2009-10)	During Current Financial Year (2010-11)
<b>Cement Plant</b>	Clinker (MT)	1210102.00	2285422.00
	Cement (MT)	119012.00	1549537.00
<b>Power Plant</b>	Power (Kwh)	104895335.00	210566568.00

**PART – C**  
**Discharged to Environment / Unit of Output**

Pollutants	Quantity of pollutants discharged (mass/day)	Concentration of pollutants in discharges (mass/volume)	Prevent age of variation from prescribed standards with reasons.		
<b>(a) Water</b> <ul style="list-style-type: none"> <li>There is no trade effluent discharge.</li> <li>The treated water of 153 m<sup>3</sup>/day (78 m<sup>3</sup>/day from STP and 75 m<sup>3</sup>/day from power plant) gainfully reutilized for horticulture &amp; dust suppression purpose.</li> </ul>	<b>Treated Water Quality (Average)</b>				
	Parameters	STP	Power Plant	Prescribed Limits (mg/l)	
	TSS	33.0	56.55	100	
	pH value	7.6	7.7	5.5 – 9.0	
	Oil & Grease	0.46	2.77	<20	
	Total Residual Chlorine	0.19	-	1.0	
	Ammonical Nitrogen	9.90	-	50	
	Total Kjeldahl Nitrogen	20.96	-	100	
	BOD	19.98	24.61	30	
	COD	76.71	115.22	250	
	Sulphide	0.01	-	2.0	
	Nitrate Nitrogen	4.82	-	10.0	
	Phosphate	-	0.86	5.0	
	Copper	-	0.05	1.0	
	Zinc	-	NIL	1.0	
Iron	-	0.25	1.0		
Chromium	-	NIL	0.2		
Free available chlorine	-	0.02	0.5		
<i>Note:</i> No variation observed. Meet with the requirements of prescribed standards.					
<b>(b) Air</b>	<b>Result (annual average)</b>				
<ul style="list-style-type: none"> <li>Stack Emission Level</li> </ul>	Location	Stacks	Tonne/day	Particulate Matter (mg/Nm <sup>3</sup> )	Prescribed Limit (PM) (mg/Nm <sup>3</sup> )
	Cement Plant	Raw Mill & Kiln	0.24	14.68	50
		Coal Mill	0.06	23.61	
		Cement Mill	0.04	8.92	
		Clinker Cooler	0.32	22.79	
	Power Plant	Boiler	0.097	31.14	100
<ul style="list-style-type: none"> <li>Ambient Air Quality</li> </ul>	Parameters	Values (µg/m <sup>3</sup> )	Prescribed Limits(µg/m <sup>3</sup> )		
	PM <sub>10</sub>	51.5	60		
	PM <sub>2.5</sub>	31.4	40		
	SO <sub>2</sub>	11.0	50		
	NO <sub>2</sub>	13.1	40		
<ul style="list-style-type: none"> <li>Noise</li> </ul>	Duration	Values {dB(A)Leq}	Prescribed Limit {dB(A)Leq}		
	Day time	57.6	75		
	Night time	48.4	70		
	<i>Note:</i> No variation observed. Meet with the requirements of prescribed standards				

**PART – D**  
**Hazardous Wastes**

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

Hazardous Waste	Name	Total Quantity (Ltrs.)			
		During Previous Financial Year (2009-10)		During Current Financial Year (2010-11)	
		Cement Plant	Power Plant	Cement Plant	Power Plant
(a) From process	Used oil	17200.0	13000.0	21230.0	7560.0
(b) From pollution control facilities	-	N.A		N.A	

**PART – E**  
**SOLID WASTE**

		Total Quantity(MT)			
		During Previous Financial Year (2009-10)		During Current Financial Year (2010-11)	
		Cement Plant	Power Plant	Cement Plant	Power Plant
(a)	From process	Nil	4486.0 (Bed Ash)	Nil	6035.68 (Bed Ash)
(b)	From pollution control facility	Dust collected from the air pollution control devices (Bag house, ESP and Bag filters) recycled back into the process.	17945.0 (Fly Ash)	Dust collected from the air pollution control devices (Bag house, ESP and Bag filters) recycled back into the process.	18147.22 (Fly Ash)
(c)	1) Quantity recycled or re-utilized within the unit	100%	100% reutilized in our existing cement plant.	100%	100% reutilized in our existing cement plant.
	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 both the categories of wastes:

- **Hazardous Waste:** Used oil as hazardous waste disposing to CPCB authorized recycler M/s Bharat Industrial Oil Company, VKI Area, Jaipur (Rajasthan). 21840 Liters used oil from cement plant, power plant and mines (as per the hazardous waste authorization obtained from RSPCB) sale out to the above authorized recycler.
- **Solid Waste:** Collection of solid waste from pollution control equipments, process etc. recycled back into the system and reutilized. Road sweeping machine and vacuum cleaning machine are deployed to collect the material. 221980 metric tonne of fly ash utilized in cement manufacturing (PPC) which is sourced from out side TPPs and own captive power plant. Refractory bricks and mild steel scrap generated are disposed to the customers for further use/ recycling purpose.

## PART – G

**In respect of the pollution abatement measures taken up on conservation of natural resources and on the cost of production: -**

<b>Cement Plant</b>	<b>Power Plant</b>
Cement plant 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 air pollution control equipments like Bag house & ESP and fugitive emission controlled by bag filters installed at various material transfer points. 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.	Captive Power Plant is being operated on environmentally clean technology. CFBC boiler provided in place of AFBC boiler and Air Cooled Condenser provided in place of water cooling tower. The stack emission from the plant is controlled by ESP. Bag filters installed at various material transfer points for the control of fugitive emission. The fly ash collected from boiler ESP is utilizing in the process of existing cement plant, thus it can be said that the utilization of raw material is being done at their cost. Since the system is operated on total recycle, there is no effect on the cost of production

## PART – H

**Additional measures / investment proposal for environment protection including abatement & prevention of pollution: -**

1. Plantation is our ongoing process. Every year we are planting fast growing suitable native plant species. Our total plant area including colony is approx. 162 hectares and year wise plantation details are as under:

<b>Year</b>	<b>No's of sapling planted</b>	<b>No's of sapling survived</b>	<b>Survival rate (%)</b>	<b>Area (Hec)</b>	<b>Greenery (%)</b>
2007-08	2156	2050	95	5.08	3.13
2008-09	2136	2030	95	4.53	2.79
2009-10	10714	10187	95	17.14	10.58
2010-11	6831	6492	95	15.98	9.86
<b>Total</b>	<b>21837</b>	<b>20759</b>	<b>95</b>	<b>42.73</b>	<b>26.36</b>

2. Feasibility study for utilization of hazardous & non hazardous waste material as co-processing is under progress.
3. Covered shed (10482.55 m<sup>2</sup>) for the storage of raw materials (additives) provided.
4. Covered shed (size: 96 x 300 meter) for storing of coal is under progress.
5. Rain Water Harvesting System developed at plant, colony, mines and nearby areas by constructing artificial recharge structures for augmentation of ground water resources.
6. Environment Management System- ISO 14001:2004, accredited by BSI.

## **PART – I**

### **Any other particular for improving the quality of the environment: -**

- 1) Proper house keeping by using sweeping machines for cleaning of roads and floor. Water spraying at raw material handling yard for dust suppression.
- 2) Covered conveyors belts and bag filter provided at all the material transfer points for the control of fugitive dust.
- 3) Civil department is taking care for rain water harvesting measures, operation and maintenance of sewerage treatment plant and pavement related developmental work.
- 4) Environmental management cell under the control of senior executives is taking care for over all environmental protection measures such as green belt development, control of air / water / noise pollution and monitoring / measurement related activities.
- 5) Aditya Birla Centre for Community Initiative and Rural Development is taking care for social welfare including eco-developmental activities in the nearby villages.
- 6) Working with best practices for better house keeping, assist in control of pollution, energy conservation, waste water utilization etc. for conservation of natural resources.
- 7) As part of corporate social responsibility, the Group company has become signatory to Cement Sustainability Initiative for Sustainable development, CO<sub>2</sub> emission monitoring and reduction.

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