



ENVIRONMENT STATEMENT 2010-11

FORM-V

ENVIRONMENT STATEMENT FOR THE FINANCIAL YEAR ENDING MARCH 31, 2011

PART-A

- i. **Name and Address of the occupier of this industry operation or process** Mr. Pradeep Vasant Dhobale
Executive Director
ITC Limited
Virginia House, 37 Chowringhee
KOLKATA - 700 071
- ii. **Industry Category** Pulp, Paper and Paperboard(Red-Category)
- iii. **Production Capacity:**
- **Installed** As per CFE , dt : 21.07.2011
7,40,000 TPY Paper & Paperboard
3,50,000 TPY Bleached Pulp
114.5 MW Co-generation Power
 - **Licensed** As per CFO , dt : 20.07.2011
5,20,000 Paper & Paperboard.
2,35,000 Bleached Pulp
89.5 MW Captive Power
40MT LPG(Mounded Storage)
- iv. **Year of Establishment** 1979
- v. **Date of last environmental Audit Statement submitted** This is the 19th Environmental Audit Statement. 18th Statement was submitted on dated 29.09.2010.



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PART-B WATER & RAW MATERIAL CONSUMPTION

i.	Water consumption	Cu.M/D (Average)
	- Process	62421
	- Cooling	6839
	- Domestic	5330
	(Including community water supply)	

Water consumption per unit of Product

Name of the product	During the Previous Fin. Year (2009-10)	During the Current Fin. Year (2010-11)
- Paper & Paperboard	50 Cu.M/T	48 Cu.M/T

ii. Raw Material Consumption

Consumption of Raw material per Unit of product

Name of the Raw material	Name of Product	During the current Fin. Year(2009-10) Kg/T	During the current Fin. Year(2010-11) Kg/T
1. Bamboo	Paper&Paperboard	8.0	Nil
2. Hardwood		1351	1442
3. Wastepaper & Pulp		246	255
4. Caustic Lye		56	48
5. Salt Cake		6.5	6.12
6. Fortified Rosin (Soln.)		3.15	2.71
7. Lime stone		65	32



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PART-C

POLLUTION DISCHARGED TO ENVIRONMENT/UNIT OF OUTPUT (Parameter as specified in the Consent issued)

a. WATER

Pollutants	Quality Parameters (avg.conc. in mg/lit)	Quantities of Pollution generated		% of variation from prescribed stds. With Reason
		Tons/Annum	Kg/Ton	
Suspended Solids	60	1185	2.47	Within the norms
Total Dissolved Solids	1002	19708	41.08	-do-
BOD3@27°C	23	442	0.92	-do-
COD	171	3360	7.00	-do-
Chlorides as Cl-	86	1698	3.54	-do-
Sulphates as SO4	231	4535	9.45	-do-
Oil and Grease	BDL	BDL	BDL	-do-
Sulphide as S	0.78	15	0.032	-do-
Dissolved Phosphate as P	1.43	28	0.059	-do-

Note : Paper & Paper Board Gross Production(2010-11) - 479745MT

Summary and monthly reports of above quality parameters monitored by external agency attached as Annexure - 1.



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b. AIR:

Boiler No.	Pollutants	Quality Parameters (Conc. mg/Nm ³)	Quantities of Pollution generated (Tons/Annum)	%of variation from prescribed stds. With Reason
CFB-4	SPM	71	32.21	Within the norms
	SO ₂	41	18.34	-do-
	NO _x	32	14.13	-do-
CFB-5	SPM	78	46.68	-do-
	SO ₂	43	25.89	-do-
	NO _x	31	18.77	-do-
CFB-6	SPM	88	9.37	-do-
	SO ₂	49	5.28	-do-
	NO _x	36	3.75	-do-
CFB-7	SPM	84	106.06	-do-
	SO ₂	51	63.64	-do-
	NO _x	37	45.91	-do-
MFB -8	SPM	74	68.66	-do-
	SO ₂	48	44.72	-do-
	NO _x	35	32.74	-do-
SRB-3	SPM	85	87.10	-do-
	SO ₂	52	52.96	-do-
	NO _x	43	43.59	-do-
	H ₂ S	4	4.10	-do-
SRB-4	SPM	93	131.14	-do-
	SO ₂	51	71.94	-do-
	NO _x	44	62.36	-do-
	H ₂ S	3	4.90	-do-
Lime Kiln-1	SPM	70	5.94	-do-
	SO ₂	42	3.52	-do-
	NO _x	32.4	2.78	-do-
Lime Kiln-2	SPM	77.7	25.97	-do-
	SO ₂	47	15.68	-do-
	NO _x	41	13.50	-do-

Summary and monthly reports of above quality parameters monitored by external agency attached as Annexure - 2.



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PART-D

HAZARDOUS WASTE /DAY

(as specified under Hazardous Wastes / Management & Handling Rules, 1989 and its amendments thereof)

Name of the Waste	Unit	Quantity/day (2010-11)
Empty Plastic containers/liners	kg	82.6
ETP sludge(fibrous material)	BD Tons	30.8
Used oil	kg	109.6
Non-ferrous scrap	Kg	5.35
Used lead acid batteries	Kg	15.8

PART - E SOLID WASTE / DAY

TOTAL QUANTITIES (TONS)

DURING THE PREVIOUS FIN. YEAR (2009-10)	DURING THE CURRENT FIN. YEAR (2010-11)
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a. From Process

- Chipper Dust	46	48
- Waste fiber from SFT & Pulp mill	4.7	1.5
- Lime sludge from causticizing	501	533

b. From Pollution Control

Facilities-Fly ash	547	669
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c. Quantity Recycled or reutilized:

- Unit Bhadrachalam achieved 100% Solid Waste Recycling/Re-use for the financial year 2010-11. **Details attached as Annexure - 3**



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PART-F

Please specify the Characteristics (In terms of concentration and quantum) of Hazardous as well as Solid Wastes and indicate disposal practices adopted for both these categories of wastes:

Characteristics of Hazardous as well as Solid Wastes attached as **Annexure - 4**

Solid Wastes disposal practices

1. Hazardous Wastes:
 - a. Empty plastic containers: Sold to agencies to re-use it after detoxification.
 - b. ETP sludge : Taken by authorized small paper mills to make low grade boards.
 - c. Used oil : Taken by authorized agents for reprocessing.
 - d. Non-ferrous scrap: To authorised external agencies.
 - e. Used lead acid batteries: Returned to manufacturers/dealers

2. Other solid wastes:
 - a. Chipper Dust –Used as Fuel in Boiler.
 - b. Waste fiber from Secondary Fiber treatment Plant - taken by small paper mills to make low grade sun -dry boards & Straw boards.
 - c. Fly Ash- Used for making fly ash bricks and construction activity.
 - d. Lime sludge: Having lime kiln for calcination, silica rich lime sludge is sent to Land fill/cement factory for recycling.

PART - G

Impact of the Pollution Control Measures on conservation of natural resources and consequently on the cost of production. : Pertaining to the Paper industry, the stringent pollution control norms and CREP implementation has helped the industry to project its image as an environment conscious industry. Subsequently, the cost of production also has gone up.



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PART-H

Additional investment proposal for : Environmental protection including abatement of pollution. For industrial sustainability and to give a green cover to the nation, social/farm forestry is taken up in a big way. At the same time to meet the Paper/Paperboards requirement of the nation, Production capacity is being increased.

Invested more than Rs.10 crores on installation & commissioning of High Volume Low Concentration (HVLC) NCG system.

PART - I

Any other particulars in respect of environment protection and abatement of pollution. To further reduce the AOX levels of pollutants, in addition to ECF pulp Bleaching, Ozone bleaching is implemented, which is again a first time in Indian Paper Industries.

To Further reduce pollution levels in waste water Effluent treatment plant is upgraded with new Moving Bed Bio-film Reactor(MBBR) along with Cooling Tower to further reduce pollutant loads in the final effluent discharge.

Efforts are made to minimize the water & energy requirement for the production.

Plantation activity is also driving us towards self-sustainable and enhanced farm and social forestry initiatives at Unit Bhadrachalam minimized the carbon footprint.

Installed online SPM analysers for all boiler stacks & data is being uploading to APPCB web



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server on hourly basis.

Efforts are on to further increase the area under crop irrigation/plantation with treated mill wastewater. Fly ash utilization is 100%. It is also used for developmental works.

Part of CO₂ from Lime Kiln-2 stacks is utilized to produce Precipitated Calcium Carbonate.

To combat the impact of climate change, Bhadrachalam unit had implemented a number of CDM Projects, details are attached.

Environmental Auditing and
Statement prepared by –

(Dr.S.Raghuveer)

(K.Nagahari)
Unit Head - BCM
For ITC Limited-PSPD
Unit: Bhadrachalam