

**Westinghouse Columbia Fuel Fabrication Facility, 2010 Site Report Information**

Address: Westinghouse Electric Company, 5801 Bluff Road, Columbia, SC

Site Area: 4,686,260 m2, Building area: 242,811 m2, Green Ratio: 94.8

Establishment: 1969, Employees: 1214 (as of March 2011)

Major products: Nuclear Fuel Assemblies, Control Rods, Mechanical Components, Engineering Services

ISO 14001 certified: November 2010, Next update: October 2011  
ISO Certificate number: UQA 0102162/D



**Message from Environmental Preservation Chief**

Columbia Plant benefits from the implementation of ISO 14001, as it has helped focus our Environmental Improvements. We have started recycling wood, and we soon expect to have contracts in place that will allow us to recycle cardboard and plastic also. Within a few months we will have completely eliminated the use of anhydrous ammonia from the plant. We continue to be full participants in the Toshiba Environmental Audits and track our improvements conscientiously.

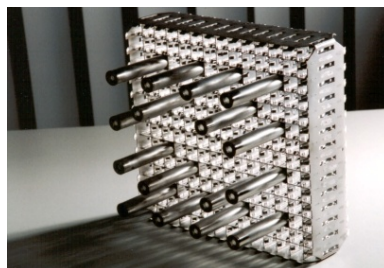


Environmental Preservation Chief:  
**Marc Rosser**,  
Environment,  
Health & Safety  
Manager

**Major environmental activities in 2010**

- Achieved ISO 14001 Certification in November 2010
- Achieved certification of the Westinghouse analytical chemical laboratory for the TSS parameter in February 2011
- Columbia served as pilot site of Westinghouse for company-wide Environmental Sustainability project
- WAIT (Wildlife & Industry Together) program completed 2 community service projects with underprivileged children, including a tour of the Congaree National Park and celebration of the 40<sup>th</sup> anniversary Earth Day
- Upgraded an on-site cabin into conference room space by utilizing and recycling the wood from our shipping containers as wall support
- Installed a new chemical resistant coating in the hydrofluoric acid pad, to release the compromised polypropylene liner
- In response to ISO 14001 FY10 Objective and Target, implemented several projects to reduce solids (TSS) and improve water quality discharged to the Congaree River
- In response to ISO 14001 FY10 Objective and Target, completed a Design Review and Process Hazards Analysis for elimination of anhydrous ammonia from the Columbia site
- In response to ISO 14001 FY10 Objective and Target, obtained management approval for Air Emissions Inventory. Scheduled the Inventory for FY11
- In response to ISO 14001 FY10 Objective and Target, collected data on energy consumption to define energy saving opportunities

**Development of products and environmental technologies, Environmental consideration point**



**Environmental communication**

- Plant bulletin boards indicating environmental initiatives and “green” activities provided by WAIT Team and the EMS Team
- “Green Tips” emailed to Columbia site to encourage environmental responsibility
- Monthly reporting of compliance with SC-DHEC NPDES liquid effluent chemical discharge requirements
- Monthly reporting to Toshiba on chemical use, energy use, and waste generation
- Semi-annual reporting of radiological environmental discharges to NRC
- Quarterly reporting of groundwater monitoring data, and hazardous waste generation to SC-DHEC
- Quarterly reporting of environmental data at Regulatory Compliance Committee management meetings
- Annual site “ALARA” Report summarizing effluents, environmental impact, and issues for the calendar year
- Annual reporting of waste minimization strategies to SC-DHEC
- Articles in the bi-weekly site newspaper, The Pellet

This policy covers the activities within the Site Boundary of Columbia Fuel Fabrication Facility (CFFF).

It is CFFF's policy to produce, market and distribute our products and services and to conduct our operations in an environmentally sound, socially responsible manner. Our guiding vision is to achieve and maintain excellence in environmental management through continual improvement, to minimize resource consumption, and support energy security and environmental sustainability on a global level, so that the Columbia Site is recognized as a responsible citizen of the world.

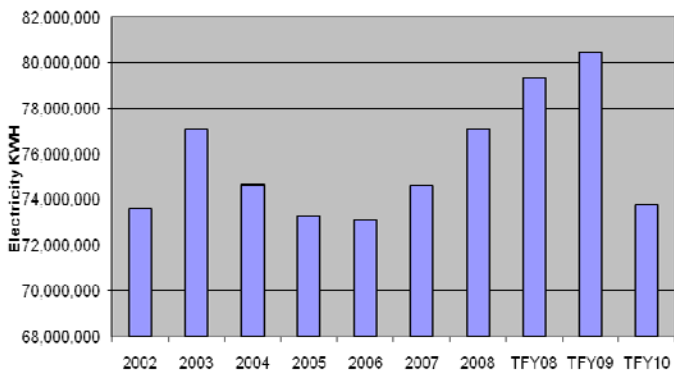
To carry out our vision, we will:

- comply with applicable environmental legal requirements, industry guidelines we have endorsed and our own standards concerning the environment
- assess the environmental aspects of our business activities, products and services, and establish and maintain meaningful environmental objectives and targets with respect to the reduction of environmental impacts and prevention of pollution
- incorporate sound environmental practices in our business decisions
- engage employees in environmental awareness and improvement activities
- communicate our environmental activities to stakeholders with integrity and transparency.

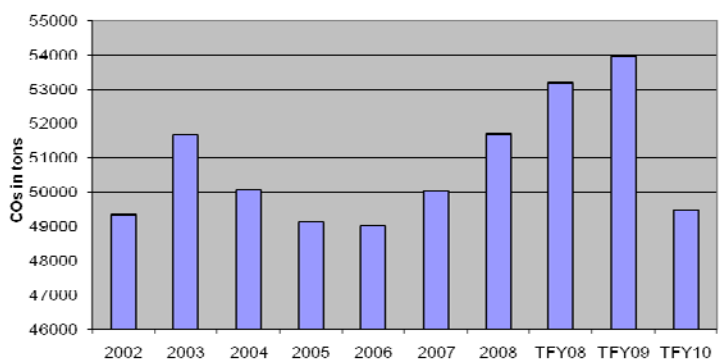
The Environmental Policy is available to the public upon request.

**Environmental load data**

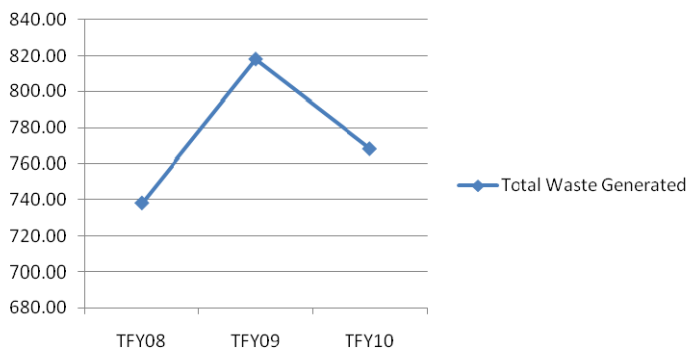
Electricity Use 2002-2010



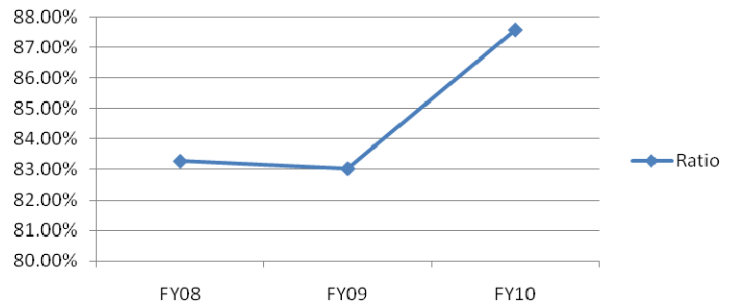
CO2 Emissions for Electricity



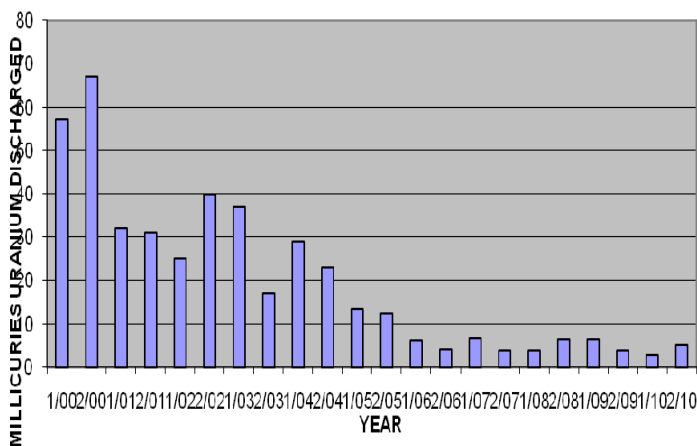
Total Waste Generated



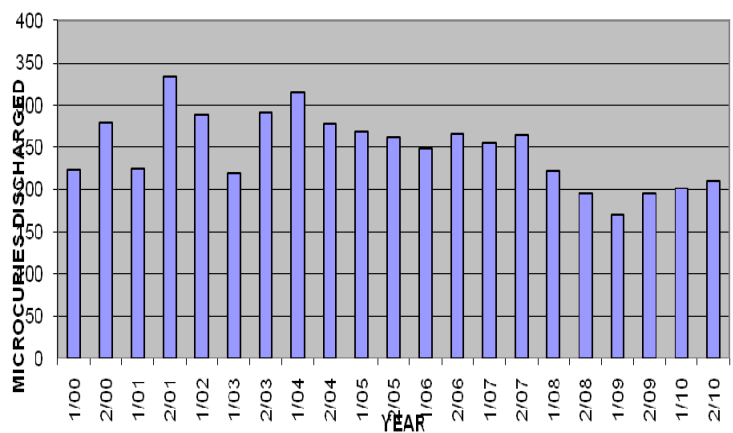
Final Disposal to Waste Generated Ratio



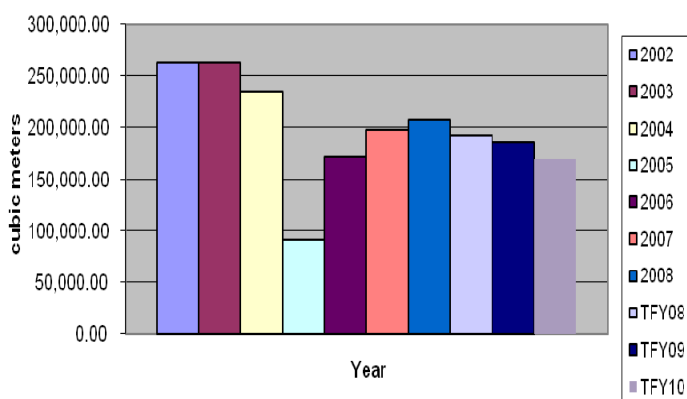
LIQUID RADIOLOGICAL EFFLUENT  
2000-2010



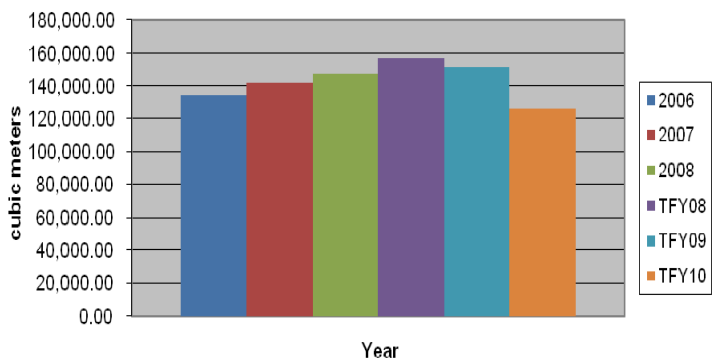
GAS EFFLUENT  
2000-2010



Water Usage



Wastewater Volume



## Compliance management

Facility: Wastewater treatment plant, wastewater is discharged to Congaree River after treatment

	Self-control value	Actual measurement	Measurement frequency
Hydrogen ion concentration (pH)	6-9	6-9	Daily
BOD (pounds/day)	30 #/d average 60 #/d max	10.4 pounds per day	Weekly
Total Suspended Solids (TSS) (pounds/day)	32#/d average 64 #/d max	14.1 pounds per day	Weekly
Fluoride (pounds/day)	N/A	3.3 pounds per day	Daily

### Ammonia and Uranium Air and Liquid Effluents

	Regulation value	Self-control value	Actual measurement	Measurement frequency
Ammonia (air)	100#/d	100#/d	84.3 pounds per day	Annual
Ammonia (water)	50#/d average 100#/d max	50 #/d	9.7 pounds per day	Daily
Uranium (air)	1020 App B table 2: 6E-14 uCi/mL at the site boundary	1.5E-11 uCi/mL at the source	5.5E-14 uCi/mL at the source	Daily
Uranium (water)	3E-7 uCi/mL	4.5E-07 uCi/mL based on annual public dose limits	1.7E-07 uCi/mL per day	Daily

### Environmental accidents, administrative advices and complaints

	State
Environmental accident	<u>None</u>
Environmental problems around the factory and in the local area	<u>None</u>
Administrative advice or direction	<u>None</u>
Complaints from neighboring residents	<u>None</u>