1 Industrial Waste

Industrial waste we generate during the course of our business includes coal ash from operation of coal-fired thermal power stations and gypsum from exhaust gas desulfurizers.

We practice the 3Rs (Reduce, Reuse and Recycle) in order to minimise these waste substances.

"Reduce" Measures

At thermal and nuclear power stations, intervals between equipment inspections are extended to reduce the number of parts (seals, bearings and gaskets, etc) to be replaced with the proviso that safety and soundness of equipment are first secured. Intervals for changing lubricating oil in equipment are also extended to reduce waste oil.

"Reuse" Measures

For electricity-related materials and equipment removed during power distribution works or other engineering works, we reasonably determine whether they are reusable based on our criteria to see if they have sufficient capability and quality for reuse. We put those materials to reuse either as they are or after repair.

"Recycle" Measures

The overall industrial waste generated in FY2005 was approximately 690,000 tons, of which around 630,000 tons (92%) was recycled. This represents a reduction of approximately 1.6% of the total amount of final disposal waste in Japan.

(source: the 2005 White Paper of the Recycling Society, the volume of annual final disposal waste in Japan totalled approximately 40 million tons).



Raising the awareness of each and every employee. Ai Tomozoe General Affairs Group, General Affairs Department, Kumamoto Branch Office

VOICE • Rising to the zero emissions challenge

The action oriented to totally eliminating emissions that I feel is the most relevant to me is reducing and recycling waste paper. These days, a lot or work processes are being computerised and are becoming paperless, so the volume of waste paper produced is already less than before, but there are still a lot of things that need to be printed out. This year—better late than never!—the Kumamoto Branch Office got a printer that is capable of printing on both sides of each sheet of paper, but I am convinced that we will not see the true effects of the new printer until each and every person in the office is dedicated to the zero emissions goal.

I have been involved with environment-related work since last year, and it struck me that all employees (myself included) must improve their individual awareness of the situation and work diligently everyday to eliminate emissions.

It is my intention as someone engaged in environment-oriented work to create the kind of approach that will act as a catalyst for an improvement in the awareness of each and every staff member.





Coal ash

Coal ash makes up approximately 80% of industrial waste; three Kyushu Electric Power coal-fired thermal power stations generate some 500,000 tons of it. However, we make effective use of coal ash's properties to create cement and other soil improvement materials.



The paving block "Cool Tone" made from recycled clinker ash, a type of coal ash, is used in sidewalks within and outside of company premises.



Other industrial waste

We are proactive in the reuse and recycling of switches, pole-top transformers and concrete power poles removed during wiring work, and all other materials.

For instance, we developed recycled aluminium wires using waste aluminium wires from our electric works, which have been employed since FY2005.



Cooperative collection of industrial waste

We introduced a cooperative collection system for industrial waste in FY2005, under which certain types of the industrial waste generated from electric works under direct management of power stations and customer service offices are collected in bulk by area and delivered to a recycling company.



Minimizing landfill waste disposed of outside the company

By practicing the 3Rs, we are endeavoring to reduce the annual amount of landfill waste disposed of outside the company to under 1.000 tons.



2 General Waste

The general waste resulting from our operation includes used paper, empty bottles and cans, plastic bottles, and kitchen garbage from cafeterias, along with shells from power stations and driftwood from dams.

Such general waste is subjected to the 3Rs just as industrial waste is.

"Reduce" Measures

We are playing our part to reduce kitchen garbage and compost it wherever possible by installing kitchen garbage treatment units in our business sites with cafeterias. The fertilizer produced by our



kitchen garbage treatment units (i.e., composters) is fermented and put to effective use on the saplings being grown at our Research Laboratory Bioresource Research Center.

A kitchen garbage treatment unit at the Miyazaki Branch Office.

"Reuse" Measures

We utilize the blank side of used paper as well as used stationery including document files.

"Recycle" Measures

Used paper

In FY2002, we began to make companywide efforts to achieve a used paper recycling rate of 100%. We have succeeded in maintaining that rate ever since.



Kyushu Environmental Management Products made from used paper Corporation to produce photocopy paper, paper string, and toilet paper bearing the Kyushu Electric Power corporate logo.

Other general waste

Recycling of general waste other than used paper is actively encouraged. Bottles, cans and plastic bottles are collected separately. Driftwood from dams and shells such as barnacles collected during periodic inspections of power stations are subjected to crushing and other treatments, and efficiently utilized as fertilizer.

Recycling of shells and driftwoods, etc. from dams (FY2005) √

	Quantity generated (tons)	Quantity recycled (tons)	Recycling rate (%)	Main use after recycling
Driftwoods, etc.	8,028	6,707	84	Substitute goods for straws, gardening compost
Shells, etc.	1,494	1,178	79	Material for compost

All used work clothes of our employees are recycled in principle. In FY2005, 4,437 pieces of expendable clothing were recycled and made into felt materials for automobiles and work gloves. Eco work gloves that are commercially offered as original Kyushu Electric Powers goods are used at our business sites.



3 Challenges in Recycling Activities

We at Kyushu Electric Power operate a waste recycling business with the cooperation of all group companies, and are working hard to minimize waste and environmental load.

For details of recycling business of our group companies, see page 50.

Fluorescent Tube Recycling Business

Japan Recycling Light Technology & System recycles used fluorescent light tubes—most of which are otherwise disposed of in landfills.

In FY2005, the company treated around 8.4 million fluorescent tubes, making (by outsourcing) and selling some 90,000 recycled lights.

Compared to landfilling, its business results in the reduction of approximately 380 tons-CO₂, and contributed to the reduction of other environmental loads such as mercury.

Confidential Document Recycling Business

Kyushu Environmental Management Corporation collects and recycles confidential documents that had been usually shredded and burned. In FY2005, the company recycled approximately 4,200 tons of confidential documents, and sold approximately 650 tons of recycled photocopy paper and 170 tons of recycled toilet paper.

4 Promotion of Green Procurement

The green procurement system was introduced in FY2002. Under the system, the company promotes green procurement by purchasing eco-friendly goods and encouraging the cooperation of suppliers.

The company employs comprehensive criteria for procurement. Environmental assessment is additionally included when purchasing goods, besides conventional economic considerations (such as quality, price and delivery time).

Commodities (Office supplies)

When purchasing commodities such as office supplies, the company selects eco-friendly products that meet the respective Kyushu Electric Power purchase standards. Since May 2006, we have put our efforts to increase the rate of green procurement by committing to purchasing eco-friendly products through use of the Electronic Catalog purchasing system* that forms part of the new online materials system.

 Products are chosen from an internet-based catalog and orders placed online (products other than eco-friendly items are not listed).



New materials system

Flow of recycling for used fluorescent tubes



*Halo-type phosphor is used in white or daylight lamps.

Three-wavelength phosphor is made up from red, green and blue phosphor.

Flow of confidential document recycling





Electricity-related materials and equipment

We assess electricity—related materials and equipment offered to us by our suppliers from a multi-faceted viewpoint—including environmental consideration. Products that satisfy that assessment are designated as Green Products, and we actively promote their procurement.

In FY2005, recycled aluminum wires joined the list of Green Products, increasing the designated items to six.

Designated Green Products (as of the end of FY2005) Waste cloth, radiation shielding material, optical transmission equipment, microwave multiplex radio equipment, eco work gloves, and recycled aluminum wires.

Green Suppliers

We welcomed eight companies working hard to protect the environment to our line-up of Green Suppliers, increasing the registered total to 162.