

3 Establishing a Recycling-Oriented Society* – Challenges towards “Zero Emissions”*

Kyushu Electric Power endeavors to achieve zero emissions* by enhancing awareness company-wide.

- The company is practicing the “Three R’s”* (Reduce, Reuse and Recycle) for general* and industrial waste*.
- Kyushu Electric Power’s group companies* also take measures to establish a recycling-oriented society*. They actively promote waste recycling such as used paper*, confidential documents and used fluorescent tubes, as well as the green procurement system*.

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1 Enhancing employee awareness

Kyushu Electric Power endeavors to achieve zero emissions* by enhancing awareness company-wide.

- The “Environment Handbooks” providing easy-to-understand explanations for achieving zero emissions were distributed to all employees in March 2002.
- Four variations of zero emissions* promotion posters have been printed for the offices (Head/Branch Offices), customer service offices and power stations to raise employee awareness. Posters designed for customers have also been made and displayed in the reception areas of each customer service office.
- Employees are invited to create slogans, which are displayed on promotional posters to enhance awareness on zero emissions*. (1,212 slogans were collected and 2,406 employees voted electronically for the best slogans.)



Zero emissions promotion poster

Zero emissions slogans

Grand Prize	Don't throw it out! Your soul goes out with your garbage.
First Prize	Rethink about our precious resources and our planet's future.
Excellence Prize	Good endeavor for all: separate garbage, cut waste, and keep the planet clean.
	Properly separated garbage becomes a precious resource.
	Let's recycle! Let's separate garbage! Let's cut waste! Keep it up!

2 Industrial waste*

Industrial waste* generated by Kyushu Electric Power’s operations includes coal ash*, gypsum* from desulfurization facilities*, sludge* from wastewater treatment, scrap metal and discarded concrete poles.

Measures for “Reduce”

At thermal and nuclear power stations, the intervals between equipment inspections are extended to reduce the number of parts (seals, bearings and gaskets) to be replaced. Intervals for changing equipment lubricating oil are also extended to reduce the amount of waste oil.

Measures for “Reuse”

For the materials and equipment removed during power distribution works or other engineering works, decisions are made as to whether they have sufficient capability and quality to be reused based on the company’s criteria. We promote the reuse of reusable materials both as they are and after being repaired.

Measures for “Recycling”

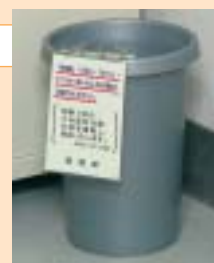
The overall industrial waste* generated in fiscal 2003 was approximately 590,000 tons, maintaining the same level since fiscal 2000. We recycled 540,000 tons of industrial waste in fiscal 2003, which are equivalent to 1% of the amount of annual waste for final disposal in Japan.

(White Paper on the Environment for Fiscal 2004 shows that the volume of annual waste for final disposal in Japan totaled 42 million tons.)

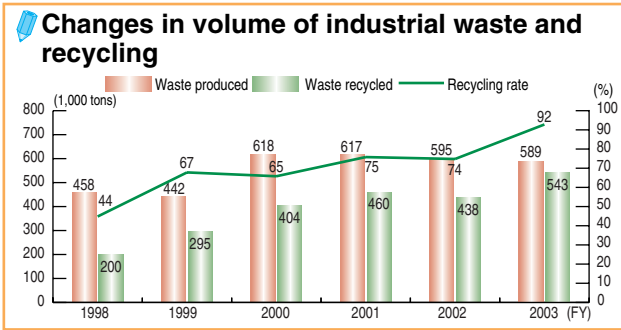
- The overall recycling rate* was recorded at 92%, improved by 18 percentage points from fiscal 2002. This was mainly because the recycling rate* of coal ash* which accounts for 80% of industrial waste increased from 68% in fiscal 2002 to 90% due to effective reuse in cement materials (clay substitute), cement admixtures and ameliorant (sand substitute).

C O L U M N NO.3 No collection for Unseparated combustible waste bins!

Kyushu Electric Power utilizes special warning cards to promote strict control over separate collection of used paper*, cans, bottles and plastic bottles. When separate collection of waste began, reusable waste, which should be disposed of in the designated collection boxes for recycling, was often disposed of in combustible waste bins. In every day collection of combustible waste, no collection should be permitted for the bins containing recyclable waste, and the bins were left uncollected with the warning cards attached for reminder to enhance awareness of separate collection. Only after such waste is properly separated for recycling, are the bins emptied on the following day. Although the cards were frequently used at the introduction of this measure, the use of cards is rare.



Warning card to promote separate collection



Industrial waste by category at Kyushu Electric Power (FY2003)

	Waste produced (tons)	Amount recycled (tons)	Recycling rate (%)	
Coal ash	460,028	415,366	90%	
Other industrial waste	Heavy and crude oil ash	121	112	93%
	Gypsum*	99,969	99,969	100%
	Sludge*	5,521	5,423	98%
	Waste oil	1,998	1,946	97%
	Waste plastic	288	159	55%
	Scrap metal	9,533	9,133	96%
	Discarded concrete poles	10,651	10,651	100%
	Waste glass and ceramics	668	240	36%
	Industrial waste subject to special control	6	2	33%
	Other waste	61	23	38%
Subtotal	128,815	127,658	99%	
Industrial waste total	588,843	543,023	92%	

*Figures are rounded and may not add up to the total.

3 General waste*

The general waste* resulting from Kyushu Electric Power's operations includes used paper*, empty cans and bottles, plastic bottles and kitchen garbage.

Measures for "Reduce"

The amount of used paper* generated is minimized through double-sided photocopying, avoiding miscopying and utilization of electrical documents, as well as by reducing the use of paper cups.

Measures for "Reuse"

The blank-side of used paper* and used stationery including document files are utilized.

Measures for "Recycling"

◇Used paper*

In April 2002, Kyushu Electric Power began to make company-wide efforts to achieve the used paper* recycling rate* of 100% by ensuring the recycling routes.

- A total of 1,875 tons of used paper* was generated, collected and fully recycled during fiscal 2003.

Collection of used paper at Kyushu Electric Power (FY2003)

Type of used paper	Amount collected (tons)
Newspapers*1	350
Magazines	44
Cardboard	61
Confidential documents	515
Others*2	904
Total	1,875

*The grand total contains round off error.

*1: May include the volume of magazines and cardboard collected.

*2: Others include used photocopy paper and envelopes.

- Through the efforts, the used paper* recycling rate* improved from approximately 50% in fiscal 2001 to 100% in fiscal 2003.

- A portion of the collected used paper* is recycled by Kyushu Environmental Management Corporation to produce photocopy paper, paper string and toilet rolls with Kyushu Electric Power's corporate logo.



Products made from collected used paper

◇Other general waste*

Recycling of other general waste* is actively encouraged.

- Bottles, cans and plastic bottles are collected separately.
- Shells collected at power stations and driftwood collected at dams are efficiently utilized, and the volume of kitchen garbage discharged from cafeterias is reduced or composted.
- Old and worn work clothes are collected for recycling.



Garbage disposer installed at Nagasaki Branch Office

4 Organizing recycling as a business

With the cooperation of its group companies, Kyushu Electric Power actively promotes waste recycling businesses.

Fluorescent tube recycling business

Japan Recycling Light Technology & System

- Japan Recycling Light Technology & System collects used fluorescent tubes from companies, schools, local governments and households, and recycles them after separating, crushing, and dissolving into raw materials including glass, metals and fluorescent phosphorous. The reclaimed materials are made into fluorescent tubes, glass products, roadbed, aluminum, steel and cement materials and refined mercury.
- Group companies* of Kyushu Electric Power also participate in the recycling of used fluorescent tubes and sent 95,000 fluorescent tubes to Japan Recycling Light Technology & System for recycling in fiscal 2003.

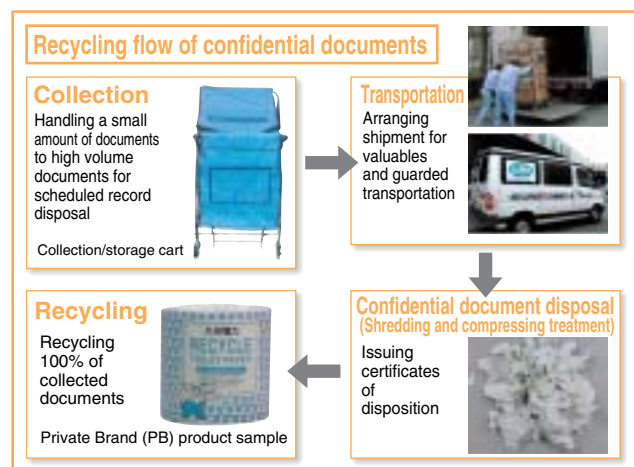
Materials crushed and collected



Confidential document recycling business

Kyushu Environmental Management Corporation

- Under strict security, Kyushu Environmental Management Corporation recycles confidential documents and deals with collecting, transporting, shredding and compressing such documents. The company also provides storage services for confidential documents under a thorough on-line security system.
- Kyushu Electric Power group companies* also promote recycling of used confidential documents and sent approximately 1,520 tons of such documents to Kyushu Environmental Management Corporation for recycling in fiscal 2003.



5 Promotion of green procurement*

Kyushu Electric Power introduced the green procurement* system in fiscal 2001 as a measure to promote the establishment of a recycling-oriented society*. Under the system, the company gives greater priority to purchase environment friendly goods in procurement of office and stationery supplies and electricity related materials and equipment.

- Environmental aspects are emphasized when purchasing goods, in addition to economic considerations such as quality, price and delivery time of the goods. Kyushu Electric Power encourages the use of eco-friendly goods by cooperating with suppliers to promote environmental activities.
- As a rule, the company selectively purchases commodities such as office and stationery supplies with EcoMark* or other socially recognized environmental labels* under the purchase guidelines prescribed for each of the eight

categories: miscellaneous goods, fixtures and furniture, electric appliances, stationery other expendables, printing, office equipment and clothing. The rate of green procurement* in fiscal 2003 reached 88%.



Green Catalog

- In order to further commit ourselves to green procurement*, we issued and distributed the “Green Catalog” in April 2004 to provide information company-wide on eco-friendly products in April 2004.
- Criteria was established to help reduce the environmental load* of electricity related materials and equipment. The materials and equipment that are in conformity with the criteria are listed as “green products” and given priority in purchasing. Two items were listed as “green products” in fiscal 2003.

VOICE ③

Publication of the “Green Catalog,” an eco-friendly goods brochure



Purchase Planning and International Procurement Group, Materials and Fuels Dept.

Akinobu Fukumaru

We have been making every effort to reach 100% achievement of green procurement in purchasing office and stationery supplies. However, various questions were raised concerning the purchase of supplies (e.g. types and availability of eco-friendly goods). Thus, we issued and distributed the “Green Catalog” in order to meet such needs and to help promote green procurement by providing information on eco-friendly products. While upgrading the catalog contents, we will work towards publishing an electronic catalog in the future.