# 3. Establishing a Recycling-Based Society - Challenges towards 'Zero-Waste'

To establish a recycling-based society, Kyushu Electric Power addresses the challenge of 'zero-waste', reducing the volume of waste for final disposal to close to zero.

- The company is practicing the 'three R's' (reduce, reuse and recycle) for general and industrial waste.
- The company is engaged in waste-recycling business with the cooperation of its group companies. Enhancing employee awareness

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

- The "Environment Handbook", which gives an easy-to-understand explanation for achieving zero-waste, is distributed to every employee.
- Posters encouraging zero-waste are displayed at all offices.
- Slogans are encouraged from employees and are used to enhance awareness regarding zero-waste.

#### Zero-waste slogans

Grand Prize	Don't throw it out! Your soul goes out with your garbage.			
First Prize	Rethink 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!			



Zero-waste encouragement poster

\* 1,212 slogans were collected and 2,406 employees (approx. 17% of all employees) voted electronically for the best slogans.

## (1) Industrial waste

The industrial waste generated by Kyushu Electric Power's operations includes coal ash, gypsum from desulfurization facilities, sludge from waste water treatment, scrap metal and discarded concrete poles.

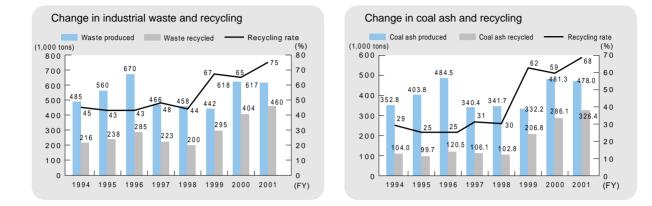
- The overall industrial waste generated in fiscal 2001 was approximately 620,000 tons, the same level as fiscal 2000.
- The overall recycling rate improved to 75%, a 10-percent increase from fiscal 2000. This was mainly due to a 40,000-ton increase in coal ash recycling.
- The 460,000 tons recycled at Kyushu Electric Power in fiscal 2001 are equivalent to 1% of the amount of annual waste for final disposal in Japan.
- To achieve a total recycling rate of 95% or more by fiscal 2003, the use of coal ash as a material for cement production will be expanded, while the recycling rate for sludge and waste plastic will also be improved.
- All used fluorescent tubes discarded by the offices are recycled by Japan Recycling Light Technology & System, one of our group companies. In addition, the Kyushu Electric Power group discusses measures for achieving zero-waste at the Kyushu Electric Group Company Environmental Management Promotion Association.

	Waste produced (1,000 tons)	Ratio of waste	Amount recycled (1,000 tons)	Recycling rate	Target (FY 2003)
Coal ash	478.0	78%	326.4	68%	
Gypsum	107.0	17%	107.0	100%	Total recycling rate of 95% or more
Sludge	5.4	1%	1.5	28%	0195% 0111010
Scrap metal	12.9	2%	12.7	98%	with the aim of zero-
Discarded concrete poles	8.9	1%	8.9	100%	waste in the future
Others	4.3	1%	3.0	69%	
Total	616.5	100%	459.5	75%	

Industrial waste by category at Kyushu Electric Power (FY 2001)

Other waste includes: Waste oil (2,200 tons, 98%); Waste plastic (600 tons, 5%); Waste glass and ceramics (600 tons, 1%); Industrial waste subject to special control (400 tons, 99%);

Heavy and clued oil ash (300 tons, 100%). Figures in parentheses show the waste produced and recycling rate, respectively.



## (2) General waste

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

#### Promotion of used paper recycling

In fiscal 2002, the company started to make further efforts to achieve 100% used paper recycling.

A total of 1,800 tons of used paper were generated during fiscal 2001. Of this, 895 tons were collected in special boxes for used paper and during periodical collection activities.

The company is also working towards reducing paper use by digitizing paper-based business operations.

A recycling system was established in fiscal 2002 to collect five different types of used paper: newspapers, magazines, cardboard, confidential documents and others.

Confidential documents are recycled by Kyushu Environmental Management Corporation, one of our group companies.

#### Promotion of other general waste recycling

Bottles, cans and plastic bottles are collected separately.

The company plans to adopt composting facilities at all business offices and other facilities with cafeterias to help address kitchen garbage produced there. Three disposers have so far been introduced on trial to test their disposal capacity, operation and usefulness of the resulting compost.

Old, worn work clothing is collected for recycling.

Collection of used paper at Kyushu Electric Power (FY 2001)

Type of used paper	Amount collected (tons)		
Newspapers	106		
Magazines	91		
Cardboard	113		
Confidential documents	127		
Others *	458		

 Others include used photocopy paper handbills and envelopes.

895

Total



Recycling at Amagi Customer Service Office



Composting facility on trial at Education & Training Center

### (3) Organizing recycling as a business

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

### Fluorescent tube recycling group company

### Japan Recycling Light Technology & System

Used fluorescent tubes are collected, sorted, crushed and recycled as glass, metals, fluorescent substance and other materials.



### Confidential document recycling group company

#### Kyushu Environmental Management Corporation

Under strict security, confidential documents are collected, stored for a limited duration and have their information erased. The treated paper is then dissolved and recycled.



Used paper with confidential information being erased under strict security

### (4) Promotion of green procurement

Kyushu Electric Power has made a policy of choosing environmentally friendly goods when purchasing stationery, expendable office automation supplies and work clothing in order to promote the establishment of a recycling-based society. In fiscal 2001, the company introduced the green procurement system to give greater priority to eco-friendly materials and suppliers. (Operation started in fiscal 2002. See Related Information I7. (p.44) for details.)

- The green procurement system encourages the use of eco-friendly goods and cooperation with suppliers to promote environmental activities. In this system, environmental aspects are evaluated when purchasing goods, in addition to practical considerations of quality, price and delivery time.
- The company selectively purchases office and stationery supplies with EcoMark or other socially recognized environmental labeling. Guidelines for purchasing have already been established for seven categories: miscellaneous goods, fixtures and furniture, electric appliances, stationery, other expendables, printing and office equipment. More categories will be included in the future.
- Criteria have also been examined since fiscal 2001 for electricity related materials and equipment. The criteria will help the company purchase materials and equipment that cause less environmental damage.

