



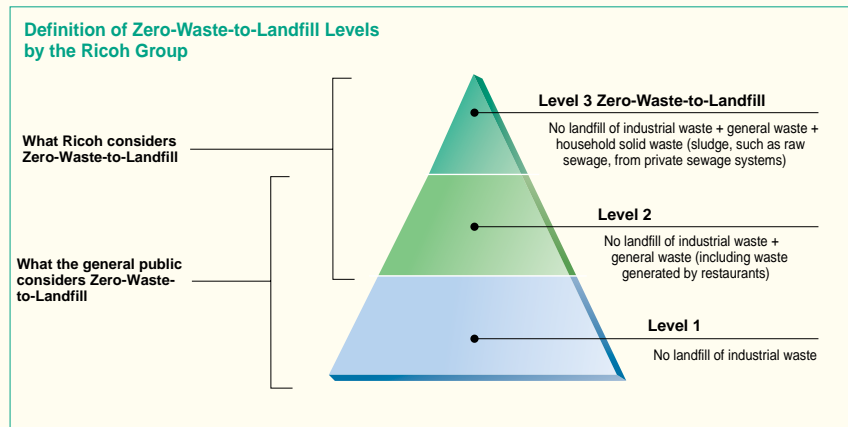
The Ricoh Group promotes Zero-Waste-to-Landfill activities at not only major production sites, but also nonproduction sites, including sales companies.

● Concept

The Ricoh Group is globally working to maximize resource productivity, primarily by limiting the production of waste, reducing water consumption, and reducing paper consumption. The Ricoh Group promotes Zero-Waste-to-Landfill* activities as a part of its sustainable environmental management system by efficiently using resources, improving production efficiency, reducing waste disposal costs, and improving corporate quality by

promoting employee awareness of environmental conservation. In fiscal 2001, the Ricoh Group achieved Zero-Waste-to-Landfill at its major global production sites. These activities are also carried out at nonproduction sites. Zero-Waste-to-Landfill has been achieved at our Aoyama Head Office and some sales, maintenance and service companies.

* Zero-Waste-to-Landfill means a 100% resource recovery rate and no waste used as landfill.



● Targets for Fiscal 2004

- ◎ Reduce generated waste by at least 13% (Ricoch and Ricoh Group manufacturing subsidiaries, compared to fiscal 2000)
- ◎ Improve the waste recycling rate to at least 90% (Ricoch Group non-manufacturing subsidiaries in Japan)
- ◎ Reduce water consumption by at least 10% (Ricoch and Ricoh Group manufacturing subsidiaries, compared to fiscal 2000)

- ◎ Reduce paper purchases by at least 10% (Ricoch, Ricoh Group manufacturing subsidiaries, and Ricoh Group non-manufacturing subsidiaries in Japan, compared to fiscal 2000)

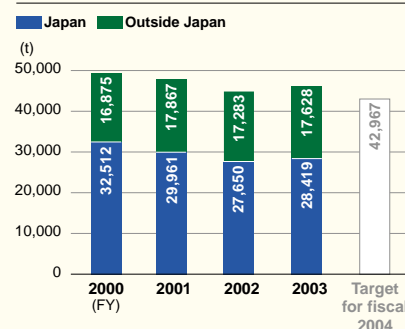
● Review of Fiscal 2003

The amount of waste generated and volume of industrial water used were heightened due to the increase in production of supplies. (See graphs ① and ②) The resource recovery rate is being improved, however at Ricoh

<The Entire Ricoh Group>

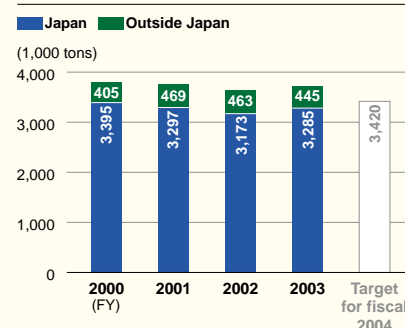
Total Amount of Waste Generated

① The Ricoh Group (production)



Volume of Industrial Water Used

② The Ricoh Group (production)



Electronics, Inc., a U.S. manufacturing subsidiary, 17.3 tons of waste were disposed of as landfill due to careless management by a recycling company and it could not achieve Zero-Waste-to-Landfill. Regarding this, the recycling company has taken preventive measures such as clarifying the workflow and promoting workers' awareness of environmental conservation. Paper purchases were reduced by 15.1%.

● Future Activities

The Ricoh Group will promote tightening of partnerships with recycling companies and intensive sorting of waste in order to maintain Zero-Waste-to-Landfill and improve the quality of recycling. Ricoh will also promote improvement of the production process to reduce the volume of industrial water used.

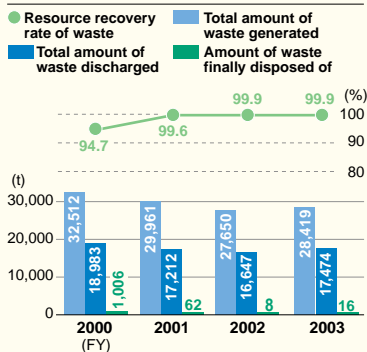
Segment Environmental Accounting of Recycling Activities at Business Sites (The Entire Ricoh Group)

Costs			Effects			
Item	Main cost	Costs	Economic benefits		Effect on environmental conservation	
			Items	Benefits	Reduction item	Amount
Business area cost	Resource circulation cost	¥757.8 million	Reduction in waste disposal expenses	¥132.6 million	Amount of waste disposed/reduced	646.6 (t)
			Proceeds from sale of valuables	¥506.4 million		

<Japan>

Resource Recovery Rate of Waste/Total Amount of Waste Generated/Total Amount of Waste Discharged/Amount of Waste Finally Disposed of

③ The Ricoh Group (production)



④ The Ricoh Group (nonproduction)

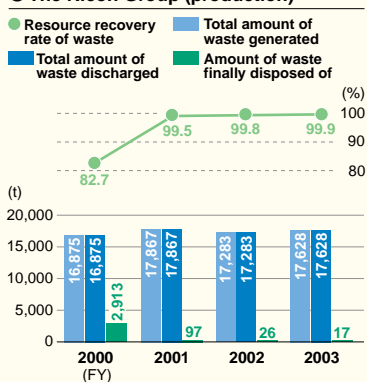
	Resource recovery rate of waste (%)	Total amount of waste discharged (t)	Amount of waste finally disposed of (t)
Sales Companies	77.9	2,381	527
Maintenance and Services (Ricoh Technosystems)	97.5	2,241	56
Logistics (Ricoh Logistics System)	95.3	4,813	227
Finance (Ricoch Leasing)	80.3	57	11

* At non-manufacturing subsidiaries, the amount of waste generated and the amount of waste discharged are the same, because waste is not processed at the business site. Therefore, only the total amount of waste discharged is listed.

<Outside Japan>

Resource Recovery Rate of Waste/Total Amount of Waste Generated/Total Amount of Waste Discharged/Amount of Waste Finally Disposed of

⑤ The Ricoh Group (production)



Resource recovery rate of waste:
Amount of resource recovered/amount discharged
Total amount of waste generated:
Amount of waste generated at business sites
Total amount of waste discharged:
Amount of waste discharged outside business sites
(including the waste undergoing disposal processing inside the plants)
Amount of waste finally disposed of:
Amount of discharged waste used in landfills and incinerated

* Some data, except that for fiscal 2002 in graphs 2, 3 and 5, are revised.

Appropriate Disposal of Waste and Improvement of Partnerships

<Ricoh Group/Japan>

Partnership with waste disposal companies is important to maintain Zero-Waste-to-Landfill. For appropriate waste disposal, the Ricoh Group evaluates waste disposal companies, reports the evaluation results to them, and strengthens the partnership. The Ricoh Group also records data on disposal costs, contracts, and manifests in a database used within the Group.



Waste management database

Improvement of Recycling Efficiency by an Intensive Method

<Ricoh Numazu Plant and Fukui Plant/Japan>

In fiscal 2002, Ricoh worked with Shinko-Frex Inc. to develop a method to use waste from the toner production process to make flux for steelmaking (patent obtained). Formerly, toner waste was chemically recycled, with the expenses which that involved, however flux for steelmaking can be sold to iron mills. Toner waste is now collected at the Numazu and Fukui Plants and made into flux for steelmaking. Approximately 140 tons of toner waste from both plants were processed as resources and the disposal costs are reduced by ¥7 million annually.

Zero-Waste-to-Landfill at Non-production Sites

<Ricoh Group/Japan>

Zero-Waste-to-Landfill activities that started at production sites have been extended to nonproduction sites. Ricoh achieved Zero-Waste-to-Landfill at Aoyama Head Office, Toda Technical Center, Shin-Yokohama Office, Ginza Office, Shinagawa Office (Ricoch System Center) and Ohmori Office. Among Ricoh Group companies in Japan, Ricoh Technosystems, a sales, maintenance, and service company, and Ricoh Logistics System Co., Ltd., a logistics company, are leading this effort, and more than 100 business sites have achieved Zero-Waste-to-Landfill. Sales divisions offer customers expertise in Zero-Waste-to-Landfill and the realization of paperless offices.



Explanation of Zero-Waste-to-Landfill activities to customers (Ricoch Tohoku Co., Ltd.)



Elaborate sorting corner (Ricoch Tohoku Co., Ltd.)