

Relationship with the Global Environment

Promotion of Waste Reduction and Recycling

Working Toward a Recycling-Based Society: Boosting Waste Recycling

The NTT Group aims to reduce its final waste volume by 5,000t by the year 2010. At the NTT Communications Group, we are doing our part to reduce waste generation and promote recycling.

Recycling and Reusing Dismantled Communications Equipment

Providing cutting-edge services in a reliable manner forms the heart of our operations. This effort requires the installation, replacement, and combination of a surprisingly large range of equipment. When communication equipment becomes redundant due to replacement and for other reasons, we recycle it when possible. When this is not feasible, we accurately tabulate the quantity and process it thoroughly. Our current medium-term plan calls for NTT Communications to boost its recycling rate* for obsolete communications equipment to 98%, raising our recycling program to an unprecedented level.

In 2004, our drive to reuse obsolete equipment in-house resulted in the reuse of 684 items, and a further 1,739 items were sold to NTT East and NTT West to be reused there. In total, our recycling rate* for obsolete communications equipment in FY 2004 soared to 98.70%—a 1.9% improvement on the previous fiscal year. One significant contributor to this impressive result was the achievement of a 99.4% recycling rate for discarded optical cable. And with demand for optical cable set to expand dramatically in the coming years, we expect this recycling effort to emerge as a vital issue in the future.

$$\text{*Recycling rate} = \frac{\text{Valuable weight} + \text{recycled weight}}{\text{Total waste volume}}$$

Waste volumes and recycling rates for dismantled communications equipment (Unit: t)

Fiscal year	Total waste volume	Valuable weight	Recycled weight	Final disposal volume	Recycling rate
2004	4,702	1,428	3,215	59	98.70%
2003	2,847	1,585	1,171	90	96.80%

Reducing Construction Waste

As part of its effort to provide the latest communications technology to its customers, NTT Communications frequently upgrades and acquires construction materials. To deal with the construction waste that results, our medium-term plan targets a 98% recycling rate in FY 2005 for certain materials specified in the Construction Recycling Law. For other waste materials (excluding sludge), the target is 62%. With these ambitious goals in mind, NTT Communications is working tirelessly to reduce and recycle construction waste.

In FY 2004, a lack of major equipment-withdrawal projects caused the recycling rate to slip slightly from the FY 2003 level, as total construction waste fell to 668t, from 3,627t in FY 2003. The recycling rate for designated materials was 97.6%, while for other materials (excluding sludge) the recycling rate was 56.9%. Going forward, NTT Communications will be rolling out a range of other measures to enhance recycling. For example, contractors will be required to achieve a certain level of recycling, detailed in project specifications and other documents, and preference in awarding waste-treatment contracts will go to contractors with high recycling rates.

Construction waste volume and recycling rate (Unit: t)

Fiscal year	Total waste volume	Recycled volume		Intermediate treatment volume	Final disposal volume	Recycling rate
		On-site	Off-site			
2004	668	0	94	573	163	75.7%
2003	3,627	0	139	3,327	391	89.2%

Paper Resource Management

NTT Communications uses paper for administrative use and in the brochures, flyers, and other written materials we distribute to customers. To reduce the volume of paper used in these applications, we are cutting paper consumption for administrative use and taking measures, such as switching to recycled paper, to conserve virgin pulp.

We are also transferring a number of customer-service functions from paper-based to electronic delivery. With our WebBilling service, customers can receive their detailed calling-charge statements and invoices by e-mail, or check this information online.

In FY 2004, the volume of virgin pulp the NTT Communications Group used rose dramatically, from 75t in the previous fiscal year to 101.9t. Although we generated fewer sheets of paper, we tripled the volume of papers rich in virgin

pulp. The volume of 70% recycled paper also rose, by 20%. The Company plans to analyze how consumption of high-quality paper rose so steeply and study ways of ratcheting up the use of recycled paper.

Paper consumption for administrative use

Fiscal year	Item	High-quality papers	100% recycled papers	70% recycled papers	Total
2004	Total number of sheets (A4 equivalent)	5,678,100	47,601,325	65,961,000	119,240,425
	Total volume (kg equivalent)	22,712	190,405	263,844	476,962
	Share of total volume by type of paper (%)	4.76%	39.92%	55.32%	100%
	Virgin pulp volume (kg)	22,712	0	79,153	101,866 (Share of total volume: 21.36%)

Reducing Office Waste

NTT Communications has formed a Working Group on Office Waste to explore ways of reducing the volume of office waste that we generate. This Working Group is at the center of our efforts to process office waste according to the law, impose strict management, sort office waste before collection, and reduce the volume of office waste generated. Our medium-term

plan stipulates a target of 70% recycling in this area, and we are vigorously pursuing measures toward this end.

Total office-waste volume was 6,553t in FY 2004, representing an increase on the previous fiscal year. However, the recycling rate rose significantly, to 48%.

Office waste volume and recycling rate (Unit: t)

Fiscal year	Total waste volume	Recycled weight	Volume discarded	Final disposal volume	Recycling rate
2004	6,553	3,152	3,401	626	48%
2003	6,101	2,659	3,435	637	43%

Appropriate Management of Chemicals and Reducing Emissions

Careful Management, and Elimination Where Possible, of Hazardous Chemicals

NTT Communications takes the management of PCBs, a harmful class of chemicals, seriously. First, we act quickly to process it into a non-hazardous form. Second, where the continued use of equipment containing or generating PCBs remains necessary, we carefully assess and manage the conditions under which it is used. This two-pronged approach underpins the guidelines for PCB handling the Company recently established.

In FY 2004, drawing on its assessment of broad trends in the field of treatment facilities and information it gathered on PCBs, the NTT Group prepared a medium-term plan for appropriate processing of these hazardous chemicals. The plan commits the NTT Group to clear targets and concerted action on PCBs, including prompt and accurate reporting to the government regarding the status of PCBs at its facilities, as well as prudent management of PCBs stored and used by the Group. In addition

to these measures, NTT Communications carried out a thorough audit of the quantity of PCBs at its facilities, including an extensive equipment-weight survey.

In FY 2004 the quantity of PCBs used in the production of ballasts declined against the previous fiscal year. This decline was achieved through the scrapping and placement in storage of lighting fixtures whose ballasts included PCBs.

Volume of PCBs stored

Fiscal year		Transformers (units)	High-voltage capacitors (units)	Low-voltage capacitors (units)	Ballasts (units)	Non-carbon paper (kg)
2004	Volume stored	0 (0)	0 (0)	22 (+16)	5,091 (+4,951)	0 (0)
	Volume used	2 (0)	0 (0)	38 (-16)	4 (-4,951)	0 (0)
2003	Volume stored	0	0	6	140	0
	Volume used	2	0	54	4,955	0

Figures in brackets () are for the previous fiscal year.