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Anritsu



Environmental Report 2004

For Protection of the Environment for Harmonious Coexistence of Human and Nature

ANRITSU GROUP

Company Profile

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Scope of the Anritsu Environmental Report 2004

Period: April 1, 2003 to March 31, 2004

Places: Anritsu Corporation

Anritsu Industrial Solutions Co., Ltd., Tohoku Anritsu Co., Ltd.,
Anritsu Customer Service Co., Ltd., Anritsu Devices Co., Ltd.,
Anritsu Technics Co., Ltd., Anritsu Engineering Co., Ltd., Anritsu
Kousan Kabushiki Kaisha, Anritsu Techmac Co., Ltd., Anritsu
Proassocie Co., Ltd., Anritsu Company(U.S.A), Anritsu Limited
(U.K.)

Scope of activities: Development, manufacturing and
sales of information and communication equipment,
measuring instruments, devices, and industrial
automation systems

Corporate name: Anritsu Corporation

Head office: 1800 Onna, Atsugi, Kanagawa Prefecture

President and Representative Director : Akira Shiomi

Capital: ¥14.0billion (as of end of March 2004)

Sales Consolidated: ¥78.4billion (in fiscal 2003)

Non-consolidated: ¥47.5billion (in fiscal 2003)

No. of employees Consolidated: 3,573(as of March 2004)

Non-consolidated: 1,199 (as of March 2004)

Major products: Information and communication equipment,
measuring instruments, devices and industrial
automation systems

Subsidiaries

Anritsu Industrial Solutions Co., Ltd.

1800 Onna, Atsugi, Kanagawa prefecture

Tohoku Anritsu Co., Ltd.

301 Aza-Doba, Koriyama, Fukushima prefecture

Anritsu Customer Service Co., Ltd.

1800 Onna, Atsugi, Kanagawa prefecture

Anritsu Devices Co.,Ltd

1800 Onna, Atsugi, Kanagawa prefecture

Tanasawa works;221-8 tanasawa,Atsugi Kanagawa prefecture

Anritsu Technics Co., Ltd.

1800 Onna, Atsugi, Kanagawa prefecture

Anritsu Engineering Co., Ltd.

1800 Onna, Atsugi, Kanagawa prefecture

Anritsu Kousan Kabushiki Kaisha

1800 Onna, Atsugi, Kanagawa prefecture

Anritsu Techmac Co., Ltd.

1800 Onna, Atsugi, Kanagawa prefecture

Anritsu Proassocie Co., Ltd

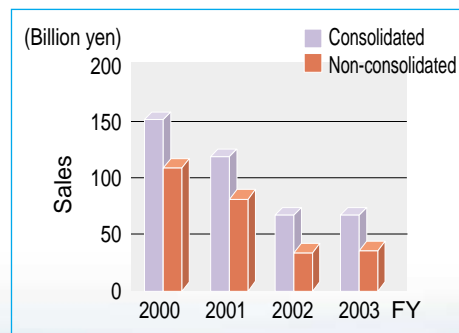
1800 Onna, Atsugi, Kanagawa prefecture

Anritsu Company

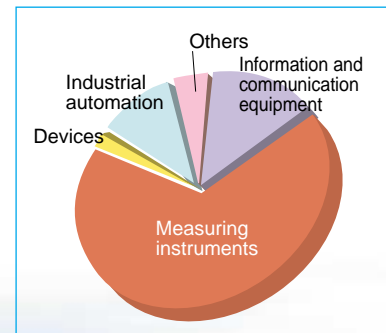
490 Jarvis Drive, Morgan Hill CA 95037-2809 U.S.A.

Anritsu Limited

200 Capability Green, Luton, Bedfordshire, LU1 3LU, U.K.



Review of Sales



Sales breakdown

Message from the President

Following the amendment of “the Law Concerning the Promotion of the Measures to Cope with Global Warming” and based on the definition by the government of its target achievement plans for attaining the goals of the Kyoto Protocol and the establishment of “the Law Concerning the Encouragement of Willingness for Environmental Conservation and the Promotion of Environmental Education”, efforts have been made by central and local governments as well as by private organizations and companies to promote education and information disclosure designed to enhance motivation toward environmental conservation. The European Parliament approved a directive on Waste of Electrical and Electronic Equipment (WEEE Directives) with the specification of target values for the recycling rate and a directive on the Restriction of the use of certain Hazardous Substances in EEE (RoHS Directive) in the European Union. The individual member countries of the EU shall bring into force the laws to comply with these directives by August 2004. These moves underscore the growing burden of social responsibility companies will have to bear to tackle the problems of the environment.

In our company commitment, we have stated “Contribution to society as a good corporate citizen” and have pledged ourselves to do our utmost in promoting environmental strategies for the conservation of the global environment. True to our environmental principles that enjoin us to “pursue product development and production by taking environmental considerations into account” and to “create a prosperous society in which man can coexist with nature,” we have steadfastly promoted activities centering on the development of environmentally conscious products, zero emissions, energy saving, and the measures of environmental risk. In 2000, we established our Recycling Center and completed the preparations to ready ourselves for the recovering and recycling of end-of-life products from our customers. Our Environmental Management System has been consolidated with the acquisition of comprehensive ISO 14001 certification for the entire Anritsu Group in Japan, and to meet the European regulations we have taken the further step of organizing Working Groups with subsidiaries in the United States and the United Kingdom. We have also embraced a commitment toward eco-business with the development and marketing of a gas detector, which is capable of remotely detecting methane gas responsible for global warming.

In our efforts to promote environmental management, it is essential to generate an “eco-mind,” a mindset attuned to environmental concerns, among each and all of our employees. In recognition of this, we have instituted practical environment-related activities involving the participation of all employees. By reinforcing our global environmental management, we have developed “eco-products” taking environmental concerns into account at all stages throughout the life cycle of our products, including the design of our products, the procurement of materials and parts, the manufacture of products, the transport of product from our factories to our customers, their use by the customers and the disposal of the end-of-life products. These efforts are underpinned by our “eco-factory” aimed at reducing the environmental impact of our production processes and our “eco-office” committed to improving our office environment.

The Anritsu Group will remain firmly committed to its role in making a contribution to the establishment of a sustainable society through the ongoing implementation of activities designed to reduce the environmental impact of its corporate activities.

This “Environmental Report 2004” reviews our environmental activities in 2003. We hope that it helps clarify our approach toward environmental conservation as well as the activities undertaken in order to achieve that goal. We welcome your opinions and feedback.

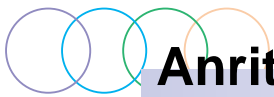
June 2004

Akira Shiomi

Akira Shiomi

President and Representative Director

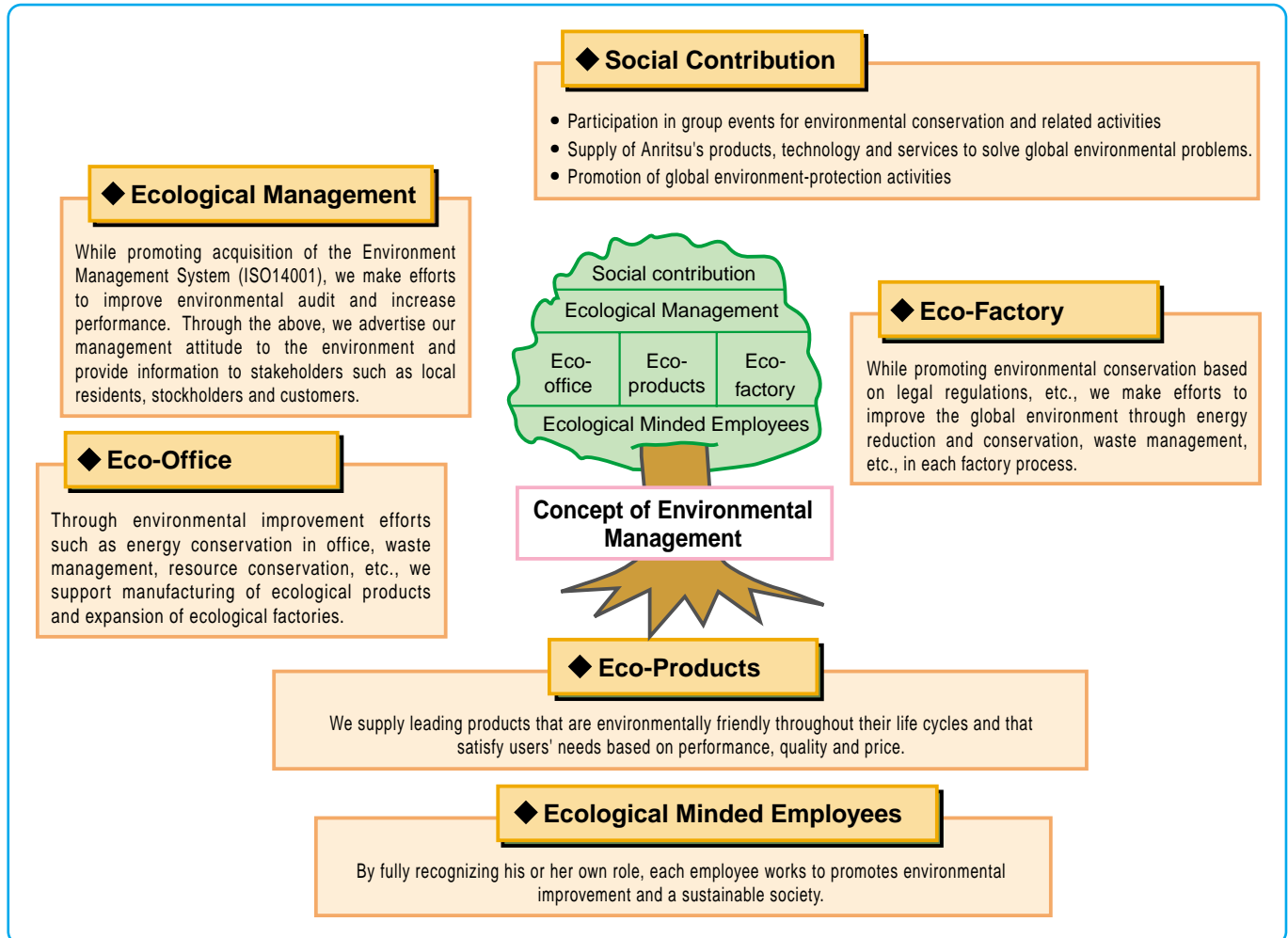




Anritsu's Environmental Management

Anritsu employees recognize our environmental role and implement environmental improvement in our business activities. Based on our leading technology with product performance, quality and price for customer satisfaction, Anritsu offers environmentally conscious products throughout their life cycle. In all spheres of our corporate activities Anritsu promotes our environmental management towards the sustainable society.

Concept of Environmental Management



Environmental Policy

Environmental Principle

Anritsu pursues the idea of sincerity, harmony and enthusiasm, aims to develop and produce goods that do not damage the environment, and contributes toward the construction of an affluent society in which humans can coexist with nature.

Action Guideline

From our factories to our offices, all of us at Anritsu are highly ecology-conscious and deeply committed to making our products and services as green as they possibly can be over the long run.

- (1) We will practice an environmental management activity with due regard to the impact on the environment in all spheres of business from development and design to disposal.
- (2) We will provide the necessary organizational and operational structure and set environmental objectives and targets to perform the environmental management activities. Moreover, Anritsu will implement an internal audit and establish and maintain a continually improving environmental management system.
- (3) We will abide by legal and regulatory controls and, with the setting of autonomous management standards, will endeavor to continuously improve environmental performance.
- (4) We will promote energy and resource conservation and waste reduction measures for offices and factories in terms of pollution prevention. Furthermore, Anritsu will take precautionary measures in order to prevent leakage, etc. of wastewater and chemicals as the result of an accident or emergency.
- (5) We will seek to conserve energy and resources and reduce hazardous substances throughout the life cycles of our products, thus supplying environmentally conscious products.
- (6) We will present this environmental policy in the bulletin and documents in order to make it known, without exception, to all company members. We will also carry out staff environmental education and training with the aim of enhancing their understanding and awareness of the issues involved.



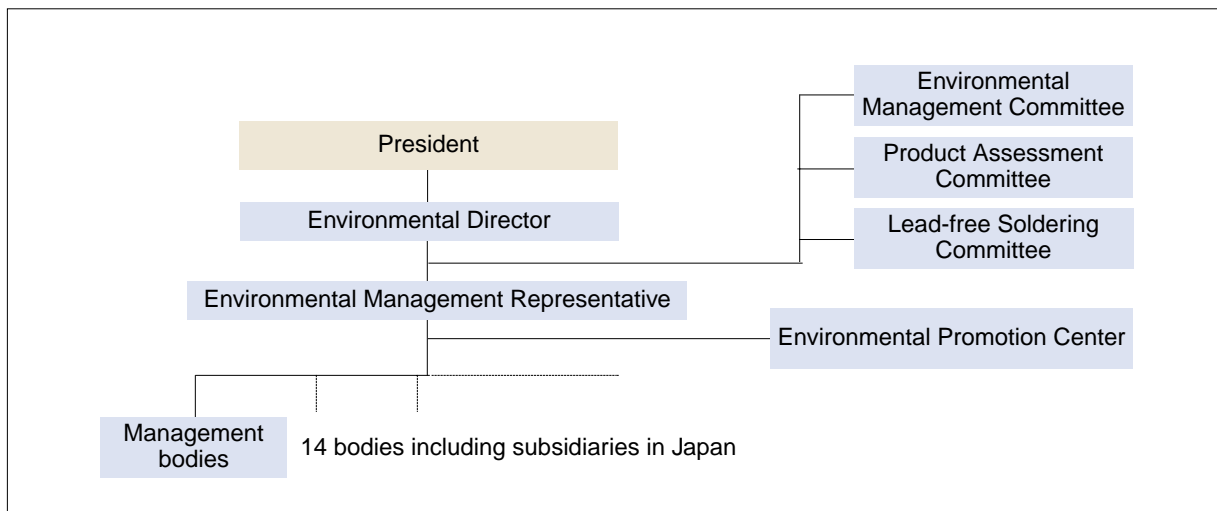
Environmental Management System

Environmental Management Organization

Anritsu has various committees with environmental responsibilities. These include the Environmental Management Committee whose Chairman is the Environmental Director with group-wide responsibilities for environmental affairs (promotion of the environmental management system), the Product Assessment Committee (promotion of development of environmentally conscious products), and the Lead-free Soldering Committee (promotion of the exclusive use of lead-free solders). Each Committee has some Special Subcommittees and Working Groups that take care of the concrete tasks of promoting specific environmental activities.

The environmental management organization in place at Anritsu Corporation pursues its activities under the control of the Environmental Director (vice President for environment). Since fiscal 2003, the corporation has united its Head Office and part of Sales Division in Atsugi site. Environmental management activities are promoted by a system that also include subsidiaries such as Anritsu Industrial Solutions Co., Ltd., Anritsu Customer Services Co., Ltd., Anritsu Engineering Co., Ltd., Anritsu Kosan Kabushiki Kaisha, all of which are located on Atsugi site, and Anritsu Devices Co., Ltd that was established in Tanasawa site in October 2003.

The Environment Promotion Center unites the environment-related organizations that used to be separate entities is the core of our efforts to intensify our environmental management. It comprehensively promotes environmental management systems and the supply of environmentally conscious products. Beginning with fiscal 2003, the production subsidiary Tohoku Anritsu that has operated separately in the past has been integrated in the environmental management organization, so as to strive for more effective environmental management activities by upholding the objectives and targets of the Anritsu Group as a whole.



Anritsu environmental management system (As of 2003)

Progress of ISO14001 Certification

Last year we acquired joint certification with Tohoku Anritsu Co., Ltd.

The companies in the Anritsu Group that have acquired ISO14001 certification are shown below.

Acquisition of ISO 14001 Certification	Certification Date	Certification Organization
Anritsu Corporation (JAPAN) Subsidiaries Atsugi site Anritsu Industrial Solutions Co., Ltd. Anritsu Customer Service Co., Ltd. Anritsu Technics Co., Ltd. Anritsu Engineering Co., Ltd. Anritsu Kosan Kabushiki Kaisha Anritsu Techmac Co., Ltd. Anritsu Proassocie Co., Ltd Tanasawa site Anritsu Devices Co., Ltd. Tohoku site Tohoku Anritsu Co., Ltd.	August 1998	JQA
Anritsu Limited (U.K.)	March 2000	BSI

Please see page 2 for locations.

Environmental Audit

An external examination by an ISO14001 certification organization is conducted every year.

An internal environmental audit is also conducted every year to evaluate the environment management system and environmental performance, as well as the compliance of divisions with environmental laws.



Environmental Objectives and Results for Fiscal 2003

With effect from fiscal 2003, a total of 16 activity items have been defined and pursued in a bid to realize the Eco-Office, Eco-Factory, and Eco-Products goals on a group-wide basis, including Tohoku Anritsu, a company previously acting as a separate entity.

[Achievements compared with as against for fiscal 2003]

○: Attained △: 80% or more ×: Not attained

Item	FY 2003 Objective	FY 2003 Result	Evaluation
Waste reduction and recycling <ul style="list-style-type: none"> • Increase of the industrial waste recycling rate to 99% by FY 2004 • Achievement of zero emission*1 by FY 2004 • Reduction of the volume of industrial waste generated by 20% by FY 2005 from that in FY 1999 	94% landfill rate 4% 36%	96% 3% 66%	○ ○ ○
Resource conservation and energy conservation <ul style="list-style-type: none"> • Reduction of electricity consumption by 24% by FY 2005 from that in FY 1990 in terms of unit initial input (building floor area) • Reduction of the overall carbon dioxide emission by 35% by FY 2005 from that in FY 1990 	22% 33%	30% 40%	○ ○
Eco products <ul style="list-style-type: none"> • Development of environmentally conscious products*2 by 40%*3 by FY 2005 • Annual development of 30%*3 of models that save resources by 10% or more (Items: volume, mass, decomposition time and power consumption) • Annual development of 20%*3 of models that improve power consumption by of 30% or more • Elimination of use of solder containing lead by the end of FY 2003 	20% 30% (Average for 4 items) 20% more than 4 models	44% 67% (Average for 4 items) 44% 1 model	○ ○ ○ ×
Green Purchasing <ul style="list-style-type: none"> • Increase of low-emission vehicles by 80% of all vehicles by FY 2005 	56%	70%	○
Reduction of the risk posed by chemicals <ul style="list-style-type: none"> • Maintenance of zero excess over the voluntary control limits for inorganic wastewater • Action against risks posed by chemicals • Increase of the usage rate of Anritsu-made MSDS for production purposes to 100% by FY 2003 • Reduction of the usage amount of chemicals under statutory control by 42% by FY 2005 from that in FY 2000 	0 5 cases 100% 38%	1 case 10 cases 100% 52%	× ○ ○ ○
Activities relating to sales department <ul style="list-style-type: none"> • Increase of the number of environmental requests collected from customers and the number of feedback requests to 4 times that of FY 2000 by FY 2005 	2.5 times	1.8 times	×
Activities relating to transport department <ul style="list-style-type: none"> • Reduction of the usage amount of packaging-material by urethane resin by 50% by FY 2005 from that in FY 2002 	15%	14.7%	△

*1: Zero emission: Situation in which the proportion of wastes disposed on landfills (industrial wastes and general wastes) is 1% or less.

*2: Environmentally conscious products: Products meeting the Anritsu criteria for environmentally conscious products.

*3: Proportion in relation to the total number of equipment models completed in the respective fiscal year.



Environmental Objectives for Fiscal 2004

Based on the activity results for fiscal 2003 and in the light of new legal regulations and social trends, the activity items were generally reviewed. As a result, the items defined in fiscal 2003 were retained in substance and a total of 15 items were specified in an attempt to raise environmental performance still further. On this basis, each group company and Division defines its own goals and promotes its activities with a view to achieving the Eco-Office, Eco-Factory, and Eco-Products.

[Environmental objectives for Fiscal 2004]

Item	FY 2004 Objective
Waste reduction and recycling <ul style="list-style-type: none"> • Increase of the industrial waste recycling rate to 99% by FY 2004 • Achievement of zero emission by FY 2004 • Reduction of the volume of industrial waste generated by 70% by FY 2006 from that in FY 2000 	99% landfill rate 1% 66%
Resource conservation and energy conservation <ul style="list-style-type: none"> • Reduction of electricity consumption by 25% by FY 2006 from that in FY 1990 in terms of unit initial input (building floor area) • Reduction of the overall carbon dioxide emission by 36% by FY 2006 from that in FY 1990 	23% 34%
Eco products <ul style="list-style-type: none"> • Development of environmentally conscious products by 60% by FY 2006 • Annual development of 30% of models that save resources by 10% or more (Items: volume, mass, decomposition time and power consumption) • Annual development of 20% of models that improve power consumption by of 30% or more • Banned the use of lead solder against products planning the use of lead-free solder by July 2006 	40% 30% (Average for 4 items) 20% Complete the introduction of lead-free solder in one or more products by each Division
Green Purchasing <ul style="list-style-type: none"> • Increase of low-emission vehicles by 98% of all vehicles by FY 2006 	79%
Risk aversion by chemicals <ul style="list-style-type: none"> • Maintenance of zero excess over the voluntary control limits for inorganic wastewater • Action against risks posed by chemicals • Reduction of the usage amount of chemicals under statutory control by 62% by FY 2006 from that in FY 2000 	0 5 cases 60%
Activities relating to sales department <ul style="list-style-type: none"> • Enhancement of the number of environmentally conscious product sales by 10% by FY2006 from that in FY 2004. 	5%
Activities relating to transport department <ul style="list-style-type: none"> • Reduction of the Usage ratio*4 by urethane packaging resin to 40% by FY 2006 	46%

*4: Usage ratio: Foamed urethane quantity used after packaging improvement / Foamed urethane quantity used before packaging improvement



Environmental Accounting

■ Environmental accounting

Anritsu has maintained environmental accounting since fiscal 2001, and based on this quantitative approach to managing environmental conservation activities, efforts are toward more effective activities. Environmental accounting data have also been presented in our Environmental Report since fiscal 2001. Statistical data in accordance with the Guidelines of the Ministry of the Environment are also published in our company brochures and on our website. In this manner, we make sure to supply all helpful and appropriate information to assist all stakeholders, including investors and the members of our local communities in making a well-founded assessment of our environmental conservation activities.

Since fiscal 2003, we have established a statistical data system using the website of our internal network. In an effort to achieve greater efficiency in the provision of statistical data we have decided to increase the accuracy of our report data rather than the frequency of data reporting.

■ Costs in fiscal 2003

No investments were made in fiscal 2003 for the prevention of global warming. In our Clean Rooms, however, we have made efforts to reduce electric power consumption through activities designed to save energy, including energy consumption for air-conditioning systems, without detracting from the optimum conditions required for Clean Room operation in terms of cleanliness and humidity. As a result, and partly also because of the relatively cool summer of 2003, we were able to reduce CO2 emissions by 374 tons, a level roughly on a par with the previous fiscal year (388 tons). As for resource recycling, we were also successful in achieving a 96% recycling rate at our Atsugi and Tanasawa sites, with a total of 134 tons of wastes having been recycled. This is the result of our efforts to promote recycling with a view of attaining our zero emissions goal. With effect from this fiscal year, we have abolished our practice of calculating estimated benefits.

Aggregation scope: Anritsu group companies in Japan
Target period: from April 2003 to March 2004 (fiscal 2003)

Environmental preservation cost				Effect*1		
Category	Breakdown		Investment amounts (in million yen)	Cost amounts (in million yen)	Economic effect (in million yen)	Volume reduction effect
Business area cost	Pollution prevention cost (risk measures included)		3.0	31.8	0.9	—
	Global environmental preservation cost	Prevention of global warming	—	127.8	15.8	—
	Resource recycling cost	Resource recycling/utilization activities	—	5.5	16.4	18.5 (t) (Paper reduction) *2
		Waste disposal cost	—	55.9	3.3	134 (t) (Reduction of waste incinerated and buried) *3
Upstream/downstream cost	Green purchase/procurement cost		—	18.1	—	—
	Design of environmentally conscious products		—	25.3		
	Recycling and treatment of products, containers and packaging		—	0.7		
Administration cost	Environmental education/manpower training		—	24.7	—	—
	Operation and maintenance of EMS and internal audit		—	84.0	—	—
	Environmental load monitoring and measurement cost		—	22.0	—	—
	Personnel expenses of environmental preservation organization		—	21.9	—	—
	Greening and upkeep of greenery*4		—	20.2	—	—
Social activity cost	Support and financial contribution to community groups, environmental preservation bodies, etc.		—	1	—	—
	Disclosure of information		—	5.9	—	—
Research and development cost	Research and development to reduce environmental loads		—	11.9	—	—
Environmental remediation cost	Cost incurred for dealing with environmental degradation		—	0	—	—
	Total		3.0	456.7	36.5	—

*1 Estimated benefit was abolished from the 2003 fiscal year.

*2 Reduction of paper from the preceding year

*3 Reduction of waste by incineration and landfill: Recycled volume calculated by subtracting the volume incinerated or buried from the total volume of industrial waste generated

*4 Greening and upkeep of greenery cost was incorporated from the 2003 fiscal year to management activity cost.

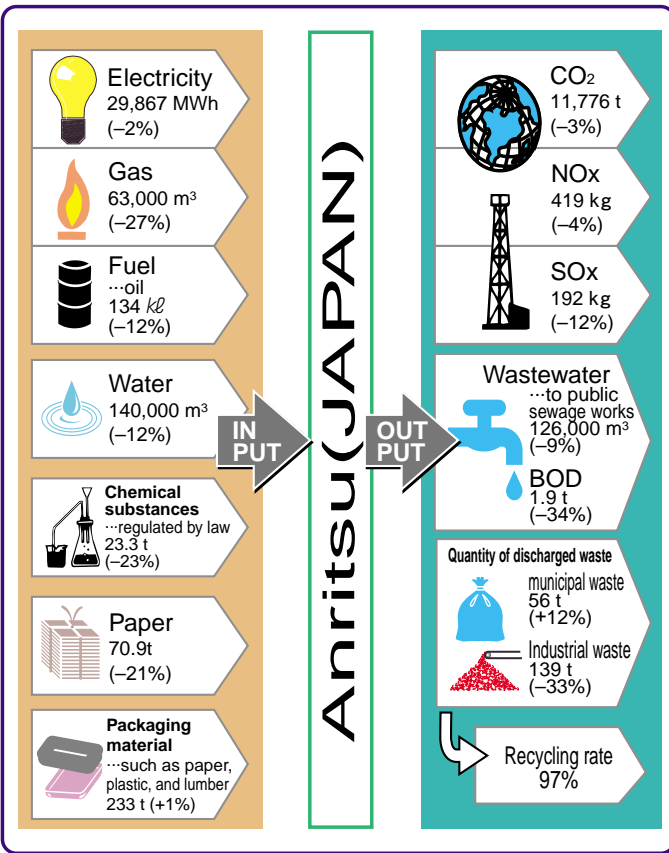
■ Method of environmental accounting

Since environmental accounting has been maintained since fiscal 2001, a considerable amount of data has accumulated. Using this extensive information, we provide valuable economic information based on highly accurate analysis and relating to environmental conservation activities both inside and outside our organization. In this manner, we have upgraded the data to an effective evaluation tool for our corporate decision-making.

Environmental Load Mass Balance

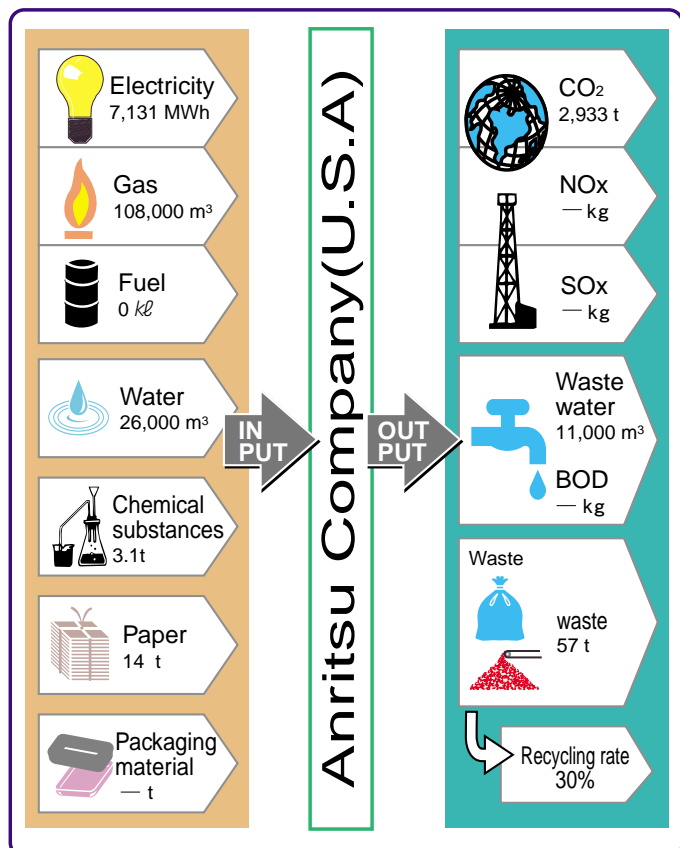
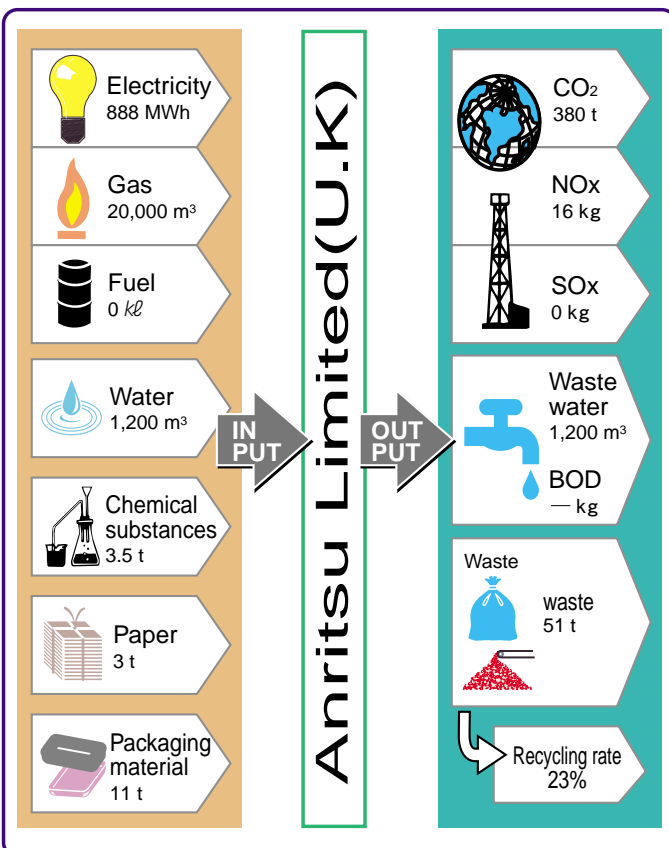
The following is the chart of mass balance of environmental load in Anritsu.

() : Increase and decrease from the preceding year



INPUT	
Electricity:	Electrical power purchased from power company to be used in works and offices
Gas:	Utility gas used as energy
Fuel:	Crude oil and diesel oil used as energy
Water:	Tap water and ground water (recycled water excluded)
Chemical substances:	Chemical substances that are regulated by law (such as toxic agent, poisonous substance, hazardous substance, organic solvent, and specific chemical substance)
Paper:	Copy paper and EDP paper used in works and offices
Packaging material:	Wrapping and packing material of products and packaging material for transportation

OUTPUT	
CO ₂ :	Carbon dioxide generated as a result of using electricity, gas and fuel
NO _x :	Nitrogen oxide generated as a result of using gas and fuel
SO _x :	Sulfur oxide generated as a result of using gas and fuel
Wastewater:	Wastewater discharged from the production system and domestic wastewater
BOD:	Biochemical oxygen demand
municipal waste:	Waste other than industrial waste that is generated as a result of business activities (such as waste paper, cardboard, and kitchen waste)
Industrial waste:	Of waste generated as a result of business activities, those regulated by the "Waste Disposal and Public Cleaning Law" such as sludge, waste plastic, waste acid, and waste alkali
Recycling:	Using waste materials as resources or raw materials by reusing or recycling them





Development of Environmentally Conscious Products

We promote the development of environmentally conscious products, that is, products using the minimum necessary amount of precious resources, products that are small and light, products with a low power consumption and long-life durability, and product that do not harm human health to the end of their life cycle (disposal). In fiscal 2003, we created our Global Working Group for reinforcing product recovery and recycling and the reduction of the use of hazardous substances. We will deploy the development of environmentally conscious products on a group-wide scale.

Environmentally conscious products

◆ Resource conservation products

Long-life products capable of using natural resources effectively

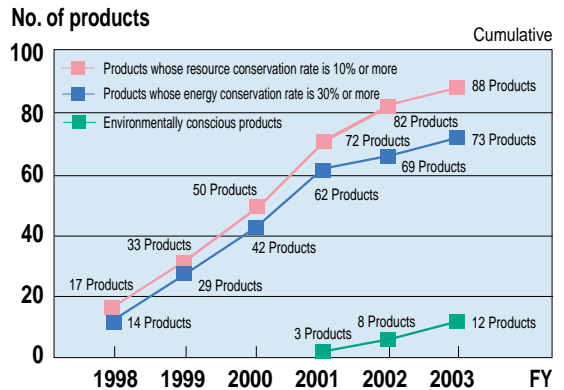
◆ Energy conservation products

Products capable of being used for a long time with little electric power

◆ Clean products

Products that do not use harmful substances to human health

Amount of Environmentally Conscious Products



■ Response to the WEEE and RoHS Directives

In order to reduce electric and electronic equipment waste, a Global Working Group has been established to respond to the WEEE Directive (Waste of Electrical and Electronic Equipment) that make the recovery and recycling of products compulsory for their manufacturers and to the RoHS Directive (Restriction of the use of certain Hazardous Substances in EEE) that imposes restrictions on the use of hazardous substances. In this manner, the Japanese parent organization closely coordinates with its overseas group member companies (notably in the United States and the United Kingdom) in an effort to establish recycling and waste treatment methods, create recovery routes, reduce the use of hazardous substances and share technology in a common commitment for products in accordance with the particular national laws.

Establishment of the Working Group for Responding to the WEEE and RoHS

Environmental Management Committee

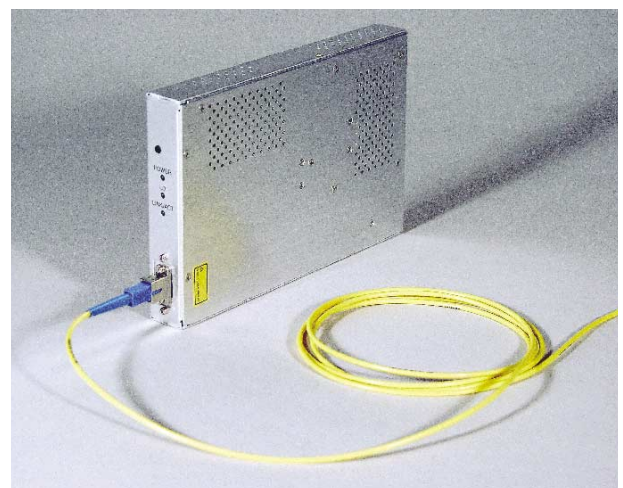
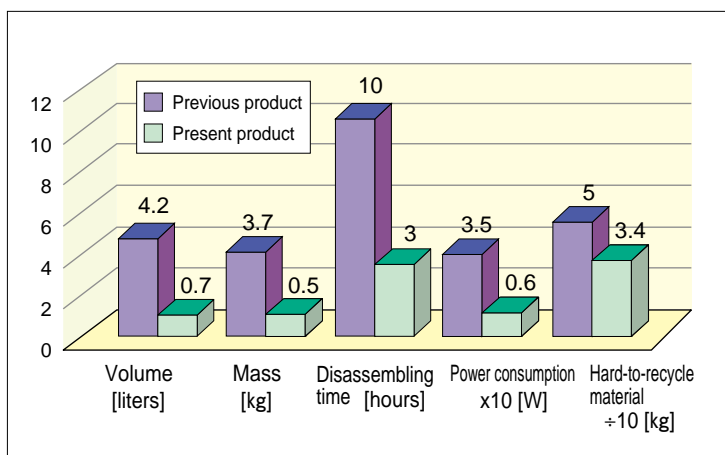
Subcommittee for Budget scheme/ recycling measures

Subcommittee for hazardous substance measures

■ Product assessment

All products that are developed by Anritsu Group are subject to a product assessment. The MW9077A OTDR module may serve as a practical example to demonstrate this.

- Volume: Use of small electrical components
- Mass: Use of components based on narrow functional selection
- Power consumption: Use of high-efficiency DC/DC converters

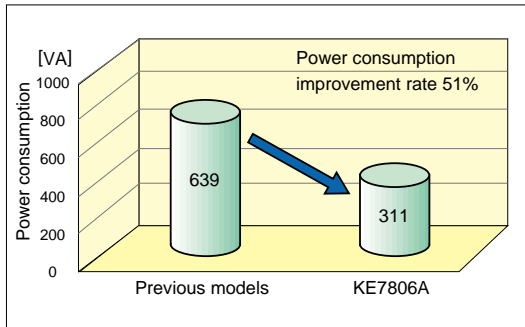


MW9077A OTDR module

The MW9077A OTDR module is suited for optical fiber monitoring systems. In recent years, optical fiber monitors are used not only for optical communications line maintenance but also for a considerable diversity of other applications, including intruder detection, water ingress detection and disaster detection.

Energy conservation designing

We are committed to the design of energy saving products, including the MW9077A OTDR module, by making use of our energy saving technology and of our database for low-power consumption components so as to contribute to the prevention of global warming. For our KE7806A Clean Multi Scale Cube we have been successful in achieving a substantial reduction in power consumption by simple functions and by reducing the number of scale.



KE7806A
Clean Multi Scale Cube



Checkweigher

Resource conservation designing

In order to effectively utilize our limited resources, we are committed to resource conservation designing through the development of small, lightweight, compact products, the reuse of parts and components, and the use of materials suited for recycling. In the footsteps of activities for the reuse of part of measuring instruments that were commenced in fiscal 2001, we initiated the reuse of checkweigher (weight sorting equipment) components as part of our policy to extend the scope of parts subject to reuse in fiscal 2003.

Clean design

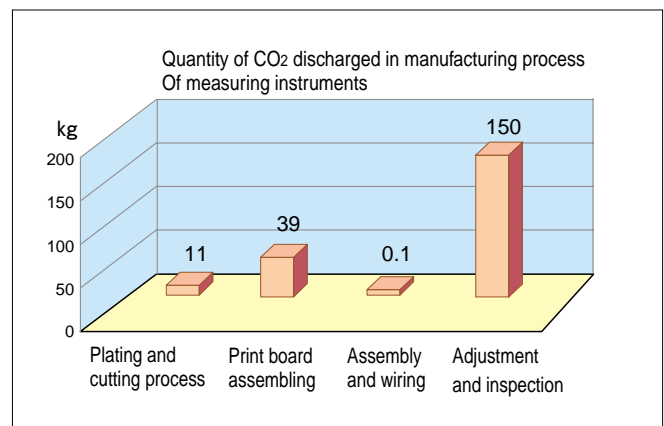
We are committed to reduce the use of hazardous substances contained in our products. In response to the RoHS Directive established by the European Union to impose restriction on the use of hazardous substances, we have reviewed our management criteria for hazardous substances. Although the measuring instruments, the principal product of Anritsu, is outside the scope of the RoHS Directive, we act positively to reduce the use of those substances that are covered by the Directive. The surface treatment processes for the conventional materials used for our products involved the use of hexavalent chromium and lead. We are expanding the product which used hexavalent chromium free electrogalvanized steel sheet, hexavalent chromium free and lead free paint, and hexavalent chromium free coating aluminium sheet, etc.

●Lead-free soldering

The conventional solder used on electronic equipment contains lead, which is hazardous substance. Since 1998, Anritsu has established core technologies for practical lead-free soldering by reviewing soldering materials and equipment, developing high reliability mounting techniques, and gathering information to achieve lead-free soldering of purchased electronic components, etc. In fiscal 2003, we expanded our database for information of the lead-free components and widened the scope of use of lead-free parts for new products. Since the Sn-Ag-Cu type lead-free solders used by Anritsu cannot support certain parts with a low heat-resistance temperature, we have conducted pilot tests to substantiate the validity of a new type of lead-free solder consisting of Sn-In-Ag. We have thus corroborated the possibility of lead-free soldering even for parts with a low heat-resistance temperature.

Assessment of manufacturing process

We are conducting life-cycle assessment (LCA), which is a quantitative method of assessing the environmental load of products over the whole manufacturing process from the collection of resources to final disposal. The environmental impact due to product in the manufacturing process is determined from the viewpoint of LCA by quantitatively assessing the amount of materials used, the level of CO₂ emissions and the quantity of hazardous substances used. This fiscal year we have carried out an assessment of our manufacturing processes for measuring instruments. Analysis of the assessment results has made it clear that a large number of hours of power consumption is required for equipment used for adjustment and inspection in the manufacturing stage.



Excellent Eco Product

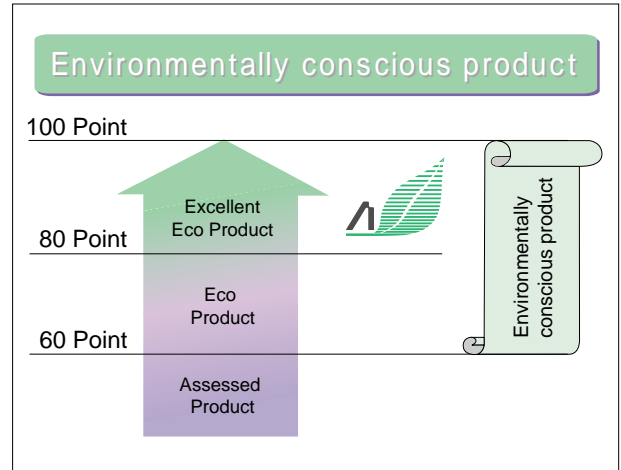
Anritsu (Japan) carries out product assessments on its own independently established criteria. “Excellent Eco Product” is defined as environmentally conscious products designed to achieve a minimum environmental impact after the product assessment, provided that they meet certain criteria for environmentally conscious products, and possess environmentally conscious features at the leading edge of the industry. Environmental information on Excellent Eco Product is published in our brochures and in our website on the Internet. In fiscal 2003, a new model has been added to the category of our Excellent Eco Product. At present, they number six, a figure that takes into account the regular review of our registration of existing models.

Major environmentally conscious criteria:

- Manufacturing assessment completed.
- Volume of discharged CO₂ evaluated by LCA
- An environmental management system is in place for products at the main factory as well as other major production centers.
- Full information disclosure
- Top ranking in the industry in environmental consciousness properties



“Excellent Eco Product” is marked with the sign at left and accompanied by associated environmental information.



●MP1590A Network Performance Tester

Major environmental consciousness properties

We have achieved progress in compact, lightweight product design by reviewing the existing circuits, by substantially reducing the number of circuit components through the use of large-scale FPGA and by integrating high-speed circuits.

- Volume: reduced by 76%
- Mass: reduced by 69%

Product Outline

These are products capable of measuring jitter and testing PDH, DS_n, SDH/SONET and OTN equipment with only one unit. If a standard external optical source is used, it is possible to perform OTN and SDH/SONET testing in accordance with the input wavelength. Jitter measurement and external optical input functions are available as a plug-in unit that can be assembled to suit the intended application.



MP1590A
Network Performance Tester

Environmental Business

■ Environmental business: Gas detectors that protect the environment and human life

Amidst the heightened interest in environmental problems such as global warming, particular interest is focused worldwide on the identification of emission sources and the quantitative determination of their concentration in order to reduce the emissions of greenhouse gas, carbon dioxide and methane. Methane is also a major constituent of natural gas (city gas), and because of its explosion hazard it constitutes a major risk for the inspection staff of gas utility companies when they conduct measurements to identify gas leak location. In collaboration with the Tokyo Gas Company, Anritsu has developed a gas detector based on the principle that the light with a specific wavelength emitted by a semiconductor laser is absorbed by methane. We will make use of this technology and apply it to our environmental measurement equipment in the future deployment of our gas detector business with the development of gas detectors that protect the environment and humans.



Laser Methane Detector
(Sold by Tokyo Gas Engineering Co., Ltd.)

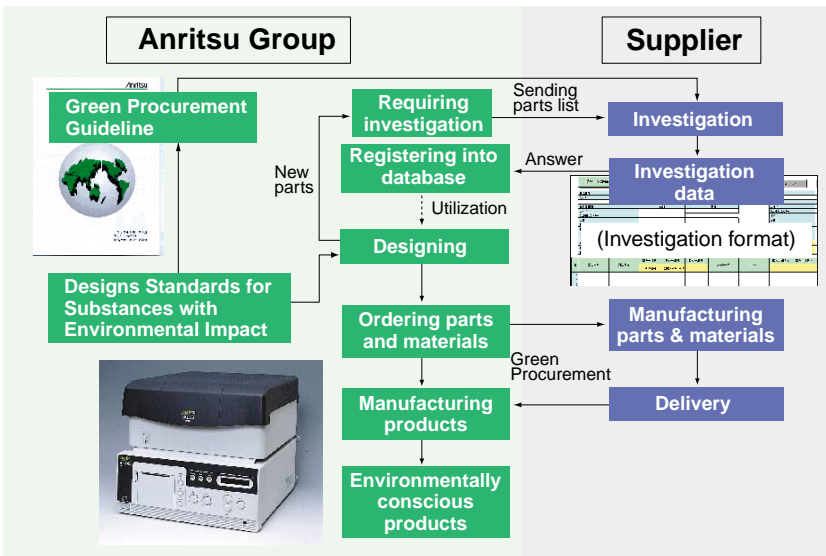
Green Procurement

To develop environmentally conscious products, it is essential that the parts and materials used to make them are themselves environmentally conscious. For this purpose, we have a company-wide commitment to green procurement that gives priority to the purchase of environmentally conscious parts and materials.

Promoting Green Procurement

In June 1999, we established our Anritsu Green Procurement Guidelines and began to promote green procurement. For all member companies of the Anritsu Group to pursue and promote green procurement, we revised our Anritsu Group Green Procurement Guidelines in September 2003. We established our own independent standards to supersede those in force until now for hazardous substances. The substances of these standards are consistent with those specified by the Japan Green Procurement Survey Standardization Initiative (JGPSSI) and use the survey response format set by JGPSSI. In accordance with these Guidelines, substances with environmental impact of procured materials and parts are investigated and the study results are registered on our internal database. Our product designers will design products on the basis of the regulations defining the substances that must not be included in materials and parts (banned substances) and substances that must not be used in manufacturing (banned substances in manufacturing) by using this database to select materials and parts that do not contain such hazardous substances. We will expand our database for company-wide sharing in an effort to ensure the global development of environmentally conscious products.

Investigation of Environmental Impact Substances and Product Development



Substances with Environmental Impact Regulated by the Anritsu Group

Type	Criteria
Banned Substances	Substances already prohibited in Japan and PBB and PBDE under the RoHS Directive.
Restricted Substances	Substances covered by the RoHS Directive (excluding PBB and PBDE)
Controlled Substances	Substances in the scope studied by the JGPSSI (excluding banned substances and restricted substances)
Banned Substances in Manufacturing	Substances prohibited from use in manufacturing under Law Concerning the Protection of the Ozone Layer
Suppressed Substances	Substances designated as prohibited from use under Law Concerning the Protection of the Ozone Layer

Contributions to Local Community and Award

Contribution to Local Community

As part of our endeavors to seek a friendly symbiosis with the local communities in which we operate, we conduct a range of riverbed, park and road clean-up activities and campaigns such as the Clean-up campaign on the Sagami river, the campaign to eliminate the unlawful dumping of wastes, the Atsugi clean campaign. We also have open days on our Atsugi site to let all who want to visit our environment-related facilities come and have a look at our kitchen garbage treatment equipment.



Atsugi clean Campaign

Award

Anritsu was selected for the FTSE4Good Global Index by FTSE Group, which originated as a joint venture between the Financial Times and the London Stock Exchange. This Index includes companies renowned for "Environmental Criteria", "Social and Stakeholder Criteria" and "Human rights". FTSE is providing indexes to investors all around the world.



Sagami river clean-up Campaign

Environmental Preservation

In order to prevent environmental pollution due to corporate activities, we have established much more stringent voluntary criteria for those standards that have been decreed by laws and ordinances in an effort to reduce environmental impacts over and above the mere observation of the existing legal regulations in terms of wastewater, atmosphere and noise.

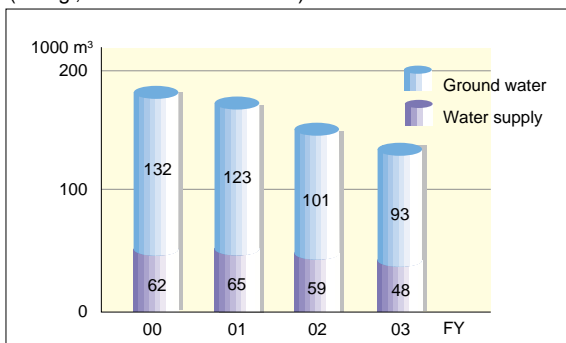
Water Conservation

Following the cessation of such chemical treatment processes as plating in fiscal 2002, we have been successful in substantially reducing the volume of wastewater from our production plant, including our emissions of hazardous substances. On our Atsugi and Tanasawa sites, we have made further progress in reducing the use of water by improving our cleaning method. As a result, we were able to reduce the volume of process wastewater by 26% in fiscal 2003 as compared with the previous fiscal year.

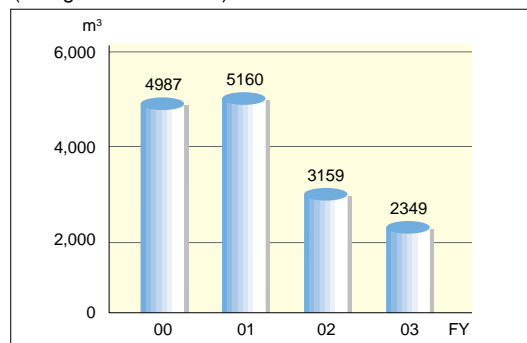
As part of our commitment to prevent environmental pollution, the quality of our wastewater is subject to more stringent voluntary management standards than the provisions of the law, and our production facilities are continuously monitored and water quality analyses are carried out at regular intervals. On our Atsugi site, one accident was recorded in which the nickel concentration of our wastewater exceeded the regulatory level (1mg/L) laid down in Atsugi City Law. This accident resulted from human error occurring in non-standard work and was due to selecting the wrong wastewater treatment system. When this accident occurred, immediate action was taken to determine its cause and consider appropriate countermeasures in order to prevent recurrence. A report of the incident with our plans for improvement was submitted to the City authorities and measures were instituted to make improvements.

Although there are no facilities on our Tohoku site using hazardous substances defined in any legal regulations, including the Law for the Prevention of Water Pollution, efforts were made to prevent pollution through rigorous voluntary inspection of our facilities.

Review of water consumption in our factories (Atsugi, Tanasawa and Tohoku)



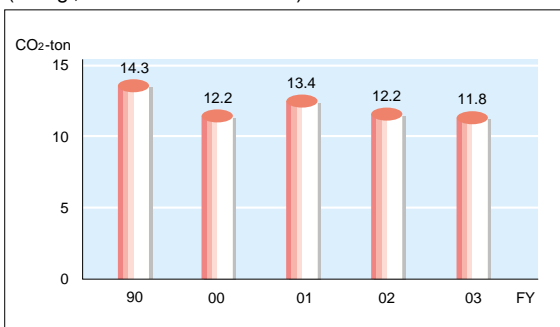
Review of volume of wastewater from processes (Atsugi and Tanasawa)



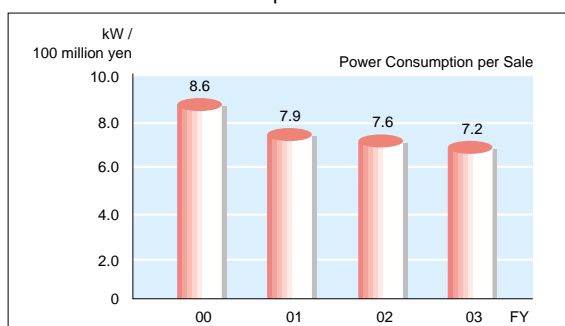
Activities to Prevent Global Warming

Anritsu (Japan) has maintained an ongoing commitment to the development of products with a low power consumption and to the deployment of energy and resource conservation activities at its factories and offices in an endeavor to reduce greenhouse gas emissions.

Review CO₂ emission due to energy consumption (Atsugi, Tanasawa and Tohoku)



Variations in Power Consumption of Our Products



Factory- and Office-based Energy Conservation Activities

In order to reduce the consumption of electric power that accounts for roughly 96% of our entire energy consumption (data for fiscal 2003; converted to CO₂ emissions), we have engaged in ongoing activity programs designed to reduce power consumption. In this context, we have created a culture in which daily power saving and effective electricity use is taken for granted by switching off lights during breaks and by ensuring filter maintenance of our package air-conditioners.

At our Tanasawa site, our semiconductor factory uses a large amount of electricity to operate the power equipment required for supplying power to the production facilities and for maintaining the clean room conditions. We are engaged in energy conservation activities on a larger scale than initially when the facilities were built (2001). Thanks to these efforts, we have reduced power consumption approximately 1,100 MWh per year (equivalent to approximately 420 tons of CO₂ emissions).

In addition to these energy conservation efforts, we were able, in fiscal 2003, to save power for air-conditioning, partly as a result of natural causes due to a cool summer and a mild winter. In consequence, CO₂ emission levels recorded an all-time low. We will remain steadfast to our commitment to save energy as in the future.

Energy conservation products

In an effort to offer our customers products that consume less energy, we have conducted product assessments and established, and are working toward, the "development of models with a 30% or better improvement in energy efficiency" as our target for and after fiscal 2002.

In fiscal 2003, we were successful in meeting our self-imposed percentage improvement target for power conservation efficiency of 44% for all model developed in that year. As a result of our efforts, including these activities, we were successful in reducing CO₂ emissions from our products used by customers by 694 tons.

Management of Chemical Substances

Management of chemical substances is an important aspect of environmental management activity. Aggressive activities are promoted in this context to reduce the use of chemical substances and curtail the volume of wastes as well as to take measures against risks.

Management of Chemical Substances

Anritsu (Japan) decides whether the chemicals can be used or not according to a preliminary assessment system, before they are used for the first time in our factories. Before the Procurement Department orders chemical substances outside suppliers, the Environmental Promotion Center shall check whether they can be registered or not. The Environmental Promotion Center uses an on-line system to manage the exact quantities of purchased chemicals, chemicals to be used and chemicals to be stored for each Division using chemical substances. The chemical substances used within the Anritsu Group make every effort to control and reduce the use of hazardous substances, including those that are prohibited from use and subject to controlled use under existing legislation or because of their harmfulness.

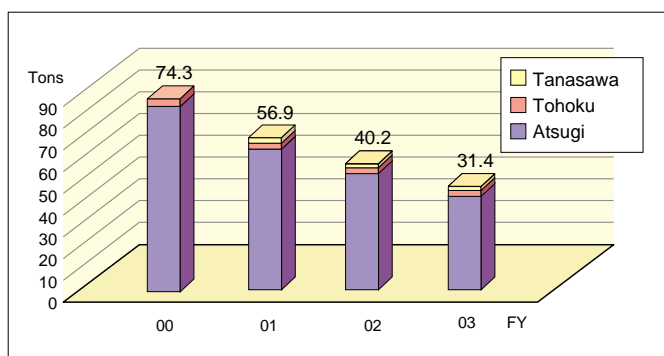
Review of chemical substance consumption

Anritsu (Japan) has established as its environmental goal up until fiscal 2002 a reduction of the use of chemical substances that are subject to legal regulations and used for production purposes. Starting in fiscal 2003, the environmental goal has been to "reduce the consumption of chemicals subject to legal regulations by 42% or more by fiscal 2005 from fiscal 2000". Activities are now underway to achieve this target. In fiscal 2003, our activities focused on the reduction of solvent used for packaging and cutting oils, with efforts made to reduce their consumption. As a result, a major reduction of approximately 52% was achieved, a level significantly above the target reduction level of 38%, as compared with fiscal 2000, with further efforts being made to reduce the consumption of chemical substances.

Restricted Substances in Manufacturing Within the Anritsu Group

Banned Substances in Manufacturing	CFC (chlorofluorocarbons), halon, carbon tetrachloride, 1,1,1-trichloroethane and HBFC (hydrobromofluorocarbons) bromochloromethane
Suppressed Substances	HCFC (hydrochlorofluorocarbons), methyl bromide, trichloroethylene, tetrachloroethylene, dichloromethane, HFC (hydrofluorocarbons), PFC (perfluorocarbons) and sulfur hexafluoride

Amount of Chemical Substance Consumption



Waste Reduction

Advancing Toward Zero Emission

Anritsu (Japan) has maintained major efforts toward its zero emissions goal in order to create a sustainable society. In fiscal 2003, material recycling was promoted. Polystyrene foam was recycled to polystyrene resin and polyvinyl chloride was recycled to hydrochloric acid and hydrocarbon. Recycled hydrochloric acid is used in the steel and chemical industries and recycled hydrocarbon is used as deoxidizing materials for the blast furnace. Foamed urethane cushioning is used as an RPF material for material recycling. (RPF is short for Refuse Paper & Plastic Fuel. It is a solid fuel consisting of old paper and plastic wastes as a replacement of fossil fuels.)

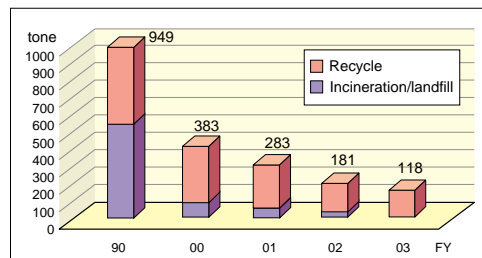
Industrial waste generation

The amount of industrial wastes generated by Anritsu (Japan) in fiscal 2003 was 139 tons. This breaks down as follows: Atsugi site accounted for 85%, Tohoku site for 13% and Tanasawa site for 2%. Industrial wastes totaled 118 ton at Atsugi site in fiscal 2003. This is a 69% reduction against fiscal 2000 (383 tons). This reduction is largely due to a shift in the activities of Atsugi site to administrative office work.

Environmental Awareness Activities

As a result of the restructuring of activities at Atsugi site education on waste sorting was given to personnel assigned to different positions. Through the in-house media, information was provided about the necessity of waste sorting and about those responsible for the recycling of wastes. In this manner, awareness campaigns were conducted to make employees more aware of wastes and recycling. At the summer festival, the participants took care of the sorting and recovering of wastes such as food containers and cups. This gave significant impetus to our awareness-building activities and to the reduction of wastes.

Amount of Industrial Wastes (Atsugi Site)



Instruction given to personnel to be assigned to different position on waste sorting

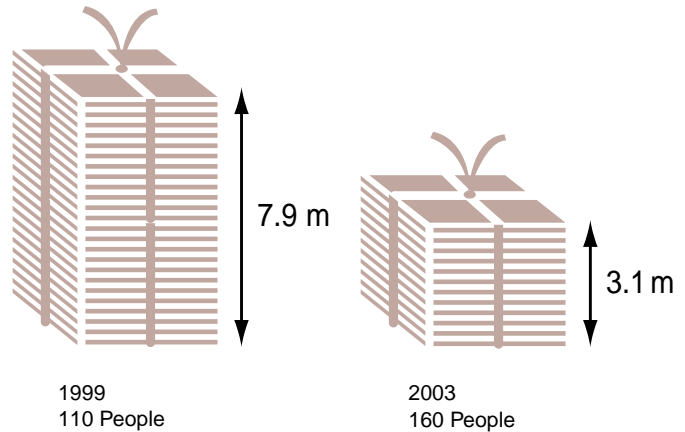


Sorted recovered at the summer festival

Anritsu Limited (UK)

Anritsu Limited in the UK is certified to the international environmental standard ISO 14001. As one of the environmental objectives, we have been acting for reduction of A4 photocopy paper. In 1999, when we first commenced this programme, the average monthly consumption of paper was a pile approximately 7.9 m high. With the environmental programme we have instituted a number of changes particularly with the widespread use of double sided printing, employee education and feedback mechanisms.

We have also implemented e-mail rules and systems, which mean that information is stored and transmitted more easily by electronic means which negates the need to print hard paper copies. With these initiatives we have reduced our monthly consumption at our Luton facility to a pile less than 3.1m high, that is, less than half the amount consumed 4 years ago. Further, the paper that we do use comes from "managed forests" whereby for each tree felled to produce paper, at least 3 trees are planted. Thus the total acreage of paper producing trees remains constant. When the paper has been used and is ready for disposal, this paper is collected and re-cycled. In these ways we are genuinely protecting our environmental commitments and acting as a responsible member of the wider community.

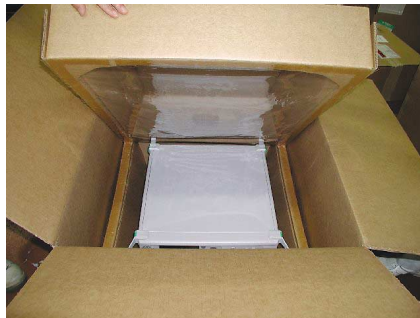


Anritsu Company (USA)

Our equipment must be safely shipped to our customers. For years, the preferred method of packaging was to use an inner box, an outer box and foam sprayed into the outer box, thereby creating a concept called "foam in place". This method allows many different products to be shipped without large storage requirements. Unfortunately, it creates a large waste problem for our customers, as the used foam is bulky and not re-usable nor recyclable. These requirements were met in a product called Korrvu(r) packaging. It is an innovative packaging product that uses a strong, highly-resilient low-slip film to surround the product, protecting it from shock and vibration. It is also referred to as a trampoline design.



1. Inner cardboard placed in the box to suspend the product in the center of the container.



2. Suspended completely between two films.



3. The box is closed, creating tension that holds the product, protecting it from shock and vibration.

Most of our instruments have utilized this method of shipment for the last 5 years. We use one common outer box with 2 different combinations of inner cardboard with trampolines, depending on size and weight. The time it takes to package a unit is the same as the "foam in place", but requires no special equipment, is environmentally safe, and can be prepared ahead of time. A major advantage to our customers is that this package can be fully recycled.

The "foam in place" method still has some advantages for applications where you have many different size products to ship (such as a remote Customer Service area).

Anritsu Group



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