



# **Environmental Report 2003**

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

ANRITSU CORPORATION

# **Company Profile**

Corporate name: Anritsu Corporation

Head office: 1800 Onna, Atsugi, Kanagawa Prefecture Tanasawa works; 221-8 Tanasawa, Atsugi, Kanagawa Prefecture President and Representative Director: Akira Shiomi Capital: ¥14,043,000,000 (as of end of March 2003) Sales – Consolidated: ¥78,600,000,000 (in fiscal 2002) Sales – Non-consolidated: ¥44,800,000,000 (in fiscal 2002) No. of employees – Consolidated: 3,720 (end of March 2003) No. of employees – Non-consolidated: 1,333 (March 2003) Major products: Information and communication equipment, measuring instruments, devices and industrial automation systems

#### Affiliated companies (those covered by this report)

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 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.

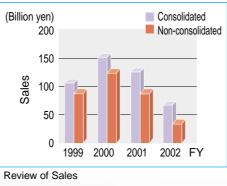
1800 Onna, Atsugi, Kanagawa Prefecture

Anritsu Company

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

#### Anritsu Limited

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





The head office of Anritsu Corporation was relocated to 1800, Onna, Atsugi-shi, Kanagawa-Prf., (the old Atsugi place of business) in May, 2003. This report indicates the old head office as an Azabu site.

#### Contents

Message from the President3
Anritsu's Environmental Management4
Environmental Management System5
Environmental Objectives and Results
for Fiscal 20026
Environmental Objectives for Fiscal 2003 · · · 6
Environmental Accounting7
Environmental Load Mass Balance8
Development of Environmentally Conscious Products9
Excellent Eco Product11
Environmental Preservation12
Management of Chemical Substances 13
Waste Reduction13
Contribution to Local Community13
Environmental Load Mass Balance by
Business Site14
Review of Our Environment Management
Activities15

Scope of the Anritsu Environmental Report 2003

Period: April 1, 2002 to March 31, 2003 Places: Head Office, and Tanasawa Works of Anritsu, Anritsu Industrial Solutions Co., Ltd., Tohoku Anritsu Co., Ltd. Anritsu Engineering Co., Ltd, Anritsu Customer Service Co., Ltd., Anritsu Kousan Kabushiki Kaisha, Anritsu Limited (U.K.) Scope of activities: Development, manufacturing and sales of information and communication equipment, measuring instruments, devices, and industrial automation systems

# Message from the President

The Kyoto Protocol, concluded in June 2002, has yet to be ratified. In order to achieve the difficult aim of reducing greenhouse gas emissions in Japan by 6%, we consider it imperative that people from all walks of life cooperate in the refining and establishment of systems that will enable the environment and the economy to coexist as well as increasing their own self-initiated environment conservation activities. On the global business scene, new environmental regulations demanding chemical substance controls have been brought in. The development of cleaner products, as well as higher levels of green procurement within Japan, is urgently needed. Anritsu upholds the following environmental principle: we sincerely believe that with the spirit of harmony and enthusiasm, we should contribute to the construction of an affluent society in which humans can coexist with nature. Consequently, we strive to develop eco-products as part of our environmental management. We are attempting to reduce the environmental burden from the design stage, and have been working to supply environmentally conscious products that are also the best in terms of power and resource savings and supplying a growing number of eco-products that meet our own requirements.

As for the recently tightened regulations concerning the use of hazardous chemical substances, we have introduced thorough internal control systems that conform to both domestic and foreign legislation. We are also engaged in the development of chromium-free materials and other activities in an effort to supply cleaner products. The primary element of our environmental management is environmental conservation. A steady approach is being made toward goals that we have set for ourselves in the areas of energy conservation, waste reduction, resource conservation, etc. Our Atsugi Works has been upgraded to a "Zero Emission" factory and, in the future, it is hoped that it will become an eco-factory as well as an eco-office.

Environmental accounting was introduced in fiscal 2000 in order to effectively promote our environment conservation activities. The domestic member companies of the Anritsu Group are now subjected to this accounting system, and its precision and corporate transparency have consequently been upgraded.

Part of the managerial structure reform that began last year involved moving the company's head office to the Atsugi Works, and integrating the manufacturing division with Tohoku Anritsu. By uniting the functions and knowledge of Anritsu Group members, we will continue striving to improve the environmental performance and efficiency of the whole group.

We are determined to have every employee of our organization achieve environmental improvements through his or her job. This can be achieved by each person having a keen awareness of his or her role in terms of supplying our customers with products that are satisfactory in areas such as performance, quality, price and environmental performance.

This "Environmental Report 2003" reviews our environmental activities in 2002. 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.

July 2003

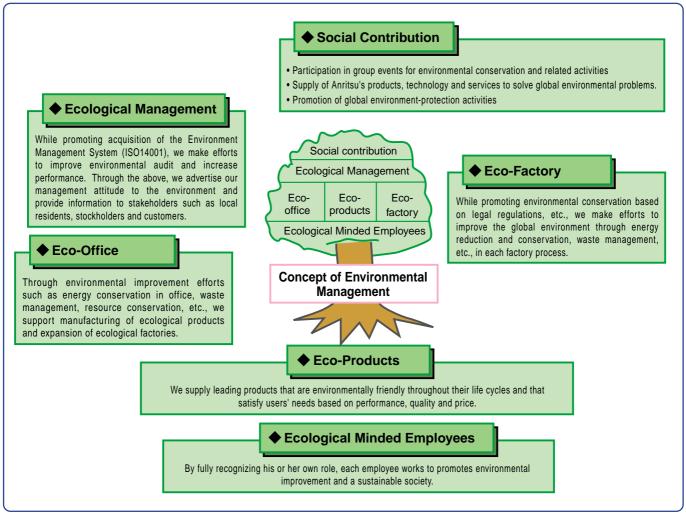
Arira Stioni

Akira Shiomi President and Representative Director

Anritsu's Environmental Management

To create a sustainable society, Anritsu practices environmental management throughout its business.

# **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**

With "eco-mind", every employee will achieve an "eco-office", "eco-factory" and "eco-products".

- (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

The Environmental System Committee, chaired by the Vice President in charge of environmental management, promotes environmental management across the entire Anritsu Group.

As forums for discussion, there are the Environmental Management Committee (in charge of the general environmental management system), Product Assessment Committee (in charge of promoting the development of environmentally conscious products), and Lead-free Soldering Committee.

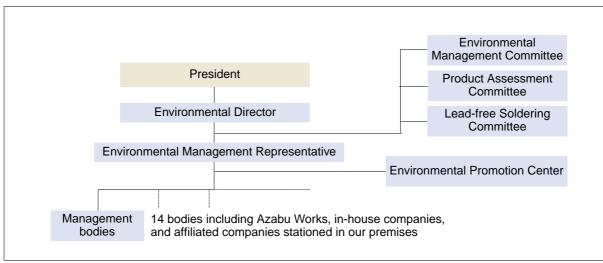
Each committee has specialized subcommittees and working groups for promoting actual environmental activities.

The environmental management activities of Anritsu Corporation are headed by the Environmental Director (the Vice President in charge of environmental management).

In 2002, affiliated companies including Anritsu Industrial Solutions Co., Ltd., Anritsu Customer Service Co., Ltd., Anritsu Engineering Co., Ltd., and Anritsu Kousan Kabushiki Kaisha, which are located in the Atsugi Site, were unified into the organization and new environmental management activities were started.

In July 2002, in order to strengthen these activities, we established the Environmental Promotion Center, thus unifying disparate environment-related organizations and promoting environmental management and the provision of eco-products in a unified manner.

Tohoku Anritsu operated its own environmental management system under the president. From 2003, however, we will operate within the Anritsu Group.



Anritsu environmental management system (As of 2002)

# Progress of ISO14001 Certification

Last year, we expanded the system and an external institution audited affiliated companies located in the Atsugi site. This year, we are going to audit jointly with Tohoku Anritsu.

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		
(Azabu site, Atsugi site and Tanasawa site)		
Anritsu group in the Atsugi area		
Anritsu Industrial Solutions Co., Ltd.	August 1998	JQA
Anritsu Engineering Co., Ltd.		
Anritsu Customer Service Co., Ltd.		
Anritsu Kousan Kabushiki Kaisha		
Tohoku Anritsu Co., Ltd.	October 1999	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.

O: Attained X: Not attained

We addressed environmental challenges actively and promoted "eco-products" activities with the new objective of "Providing environmentally conscious products", as well as "eco-office" and "eco-factory" activities.

#### [Achievements compared with as against for fiscal 2002]

Item	FY 2002 Objective	FY 2002 Result	Evaluation
Waste reduction and recycling • Reduction of the volume of industrial waste incinerated/buried by 99% by FY 2005 from that in FY 1990 • Increase of the industrial waste recycling rate to 99% by FY 2005 • Achievement of zero emission* <sup>1</sup> by FY 2005 • Reduction of the volume of industrial waste generated by 20% by FY 2005 from that in FY 1999 • Efficient use of waste from kitchens (installation of garbage disposer)	88% 89% (9%) 17% under consideration	96% 89% (6%) 54% installed one	00000
Resource conservation and energy conservation • Reduction of electricity consumption by 22% by FY 2005 from that in FY 1990 in terms of unit initial input (building floor area)	22%	35%	0
<ul> <li>Reduction of overall carbon dioxide emission by 36% by FY 2005 from that in FY 1990 in terms of unit initial input (building floor area)</li> <li>Deduction of the second seco</li></ul>	35%	47%	0
Reduction of copy paper consumption by 18% FY 2005 from that in FY 1998 in terms of unit initial input (number of employees)	15%	25%	0
<ul> <li>Eco products</li> <li>Provision of environmentally conscious products</li> <li>Annual development of 10 or more models that save resources by 10% or more (Items : volume, mass, decomposition time and power consumption)</li> <li>Annual development of 5 or more models that improve power consumption by 30% or more</li> <li>Elimination of use of solder containing lead by the end of FY 2003</li> </ul>	total 5 models 10 models (average for 4 items) 5 models 4 models	total 8 models 10 models (average for 4 items) 7 models 4 models	00
Prevention of pollution <ul> <li>Maintenance of zero excess over the voluntary control limits for inorganic wastewater</li> <li>Increase of low-emission vehicles by 80% of all vehicles by FY 2005</li> </ul>	0 30%	0 36%	00
Reduction of the risk posed by chemicals • 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 46% by FY 2005 from that in FY 1999	4 cases 70% 43%	7 cases 73% 74%	000
Activities of sales department • 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 times	2.5 times	0
Activities of logistics department • Reduction of the packaging-rate by urethane resin to 80% by FY 2005	95%	83%	0

\*1 Zero emission: The state where the landfill rate of waste (volume reclaimed/overall volume of waste generated) is 1% or less

# Environmental Objectives for Fiscal 2003

From FY 2003 ,we will set environmental objectives for domestic member companies including Tohoku Anritsu, and continue to implement "eco-office", "eco-factory" and "eco-products" activities.

#### [Environmental objectives for Fiscal 2003]

Item	FY 2003 Objective
Waste reduction and recycling • 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 40% by FY 2005 from that in FY 1999	94% (4%) 36%
Resource conservation and energy conservation • 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%
Eco products • Offer of environmentally conscious products by 40% by FY 2005 • 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 • Elimination of use of solder containing lead by the end of FY 2003	20% 30% (Average for 4 items) 20% more than 4 models
Prevention of pollution • Maintenance of zero excess over the voluntary control limits for inorganic wastewater • Increase of low-emission vehicles by 80% of all vehicles by FY 2005	0 42%
Reduction of the risk posed by chemicals • 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	5 cases 100% 38%
Activities relating to sales department • Increase of the number of environmental requests collected from customers and the number of feedback reports to 4 times that of FY 2000 by FY 2005	2.5 times
Activities relating to transport department •Reduction of the packaging- rate by urethane resin to 80% by FY 2005	93%

# Purpose of environmental accounting

Environmental accounting has been introduced as part of our quantitative evaluation of the costs and effects of the environmental management activities to raise the efficiency of these activities. Information helpful in evaluating business enterprises and others will be made available to investors, local residents, etc. through environmental reports and the like.

# Costs in fiscal 2002

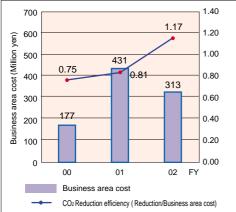
The range covered by our environmental accounting was expanded in 2002 to include Tohoku Anritsu Co., Ltd. and other domestic members of the Anritsu Group. The cost breakdown was reviewed to improve the precision of summation and overall accuracy. A summation system based on our intra-group network web sites was established to pave the way for more efficient administration from 2003. A review of the CO<sub>2</sub> reduction rate figures introduced in 2002 (ratio of the volume of CO<sub>2</sub> reduced to the business area cost) suggests that the business area cost was more efficiently reflected on CO<sub>2</sub> reduction despite the effect of the operational scale on the reduction.

Environmental preservation cost						Effect
Category	Breakdown		Investment (in million yen)	Cost (in million yen)	Economic effect (in million yen)	Volume reduction effect
	Cost for pollution control (risk measures included)		21	68	1 (316)*1	_
Business area cost	Global environmental preservation cost	Prevention of global warming	25	145	16	367 (t-CO2)
	Resource recycling	Resource recycling/ utilization activities	_	9	25	31(t) (Paper reduction)*2 193(t) (Reduction of
	0031	Waste disposal cost	—	92	9	waste incinerated and buried)*3
	Green purchase/procurement cost     —     8       Design of environmentally conscious products     —     57					
Upstream/			57	[34]*4	[797 (t-CO <sub>2</sub> )]*4	
downstream cost	Recycling and treatment of products, containers and packaging		—	4	[]	
	Environmental education/manpower training		—	47	—	—
Management	Operation and maintenance of EMS and internal audit			110	0	—
activity cost	Environmental load monitoring and measurement cost		—	21	—	—
Personnel expenses of environmental preservation		nvironmental preservation	—	50	_	—
	Protection, cleaning and enhancement of scenic beauty	Greening and upkeep of greenery	_	25	_	—
Social activity cost			_	1	_	—
	Disclosure of information		_	8	(1)*5	—
Research and development cost	Research and development to reduce environmental loads			12	_	_
	Total		46	657	51 (368)*6	—

Coverage: Anritsu group companies in Japan

Period of accounting: April 2002 to March 2003 (fiscal 2002)





#### \*1 The values in parentheses is the presumed profit (= sum of profit excluding environmental repair and profit excluding payment of fines or penalties for the purpose of complying with rules).

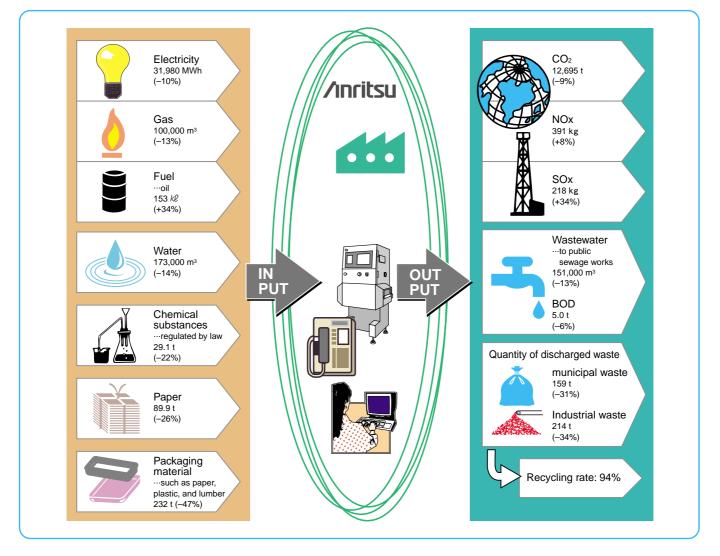
- \*2 Reduction of paper from the preceding year
- \*3 Reduction of waste by incineration and landfill: Recycled volume calculated by subtracting the volume ,incinerated or buried from the total volume of industrial waste generated
- \*4 The customers' reduction in energy consumption when the product is used (2110 MWh/year) is presented in terms of the economic effect (charge for electric power) and the equivalent volume of carbon dioxide discharged. Not included in the total economic effect.
- \*5 The value in parentheses is the presumed profit estimated by converting the effect of an article in a public notice into an advertising expense.
- \*6 The value in parentheses is the total profit including presumed profit.

CO<sub>2</sub> reduction efficiency: Indicates the CO<sub>2</sub> reduction efficiency relative to the environmental investment cost. Volume of CO<sub>2</sub> reduced/ business area cost (tonnage of CO<sub>2</sub> reduced per unit cost of one million yen).

# Method of environmental accounting

To keep track more effectively of our environmental management activities, the present criteria for determining the effects including CO<sub>2</sub> reduction will be reviewed, and indicators useful for evaluating those activities will be developed. Our environmental accounting will be improved into an effective evaluation tool both domestically and internationally.

The following is the chart of mass balance of environmental load in Anritsu as a whole (Azabu Works, Atsugi Works, Tanasawa works and Tohoku Anritsu).



# INPUT

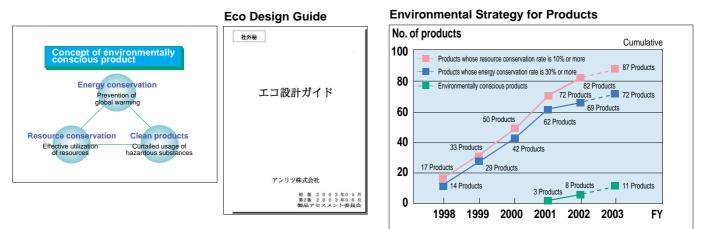
Electricity:	Electrical power purchased from power company to be
	used in works and offices
Gas:	Utility gas used as energy
Fuel:	Crude oil and diesel oil used as energy
Water:	Tap water and ground water (recycled water excluded)
Chemical substances	: Chemical substances that are regulated by law (such 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

CO2:	Carbon dioxide generated as a result of using electricity,
	gas and fuel
NOx:	Nitrogen oxide generated as a result of using gas and fuel
SOx:	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 through conservation of energy and resources and clean products (curtailing usage of hazardous substances). In 2002, a definite environmental consciousness criterion was established by merging the product assessment introduced in 1994 and the environmental label system established in 2000. The Eco Design Guide for designers and various databases will be improved to supply more environmentally conscious products.

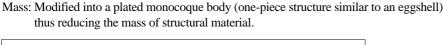


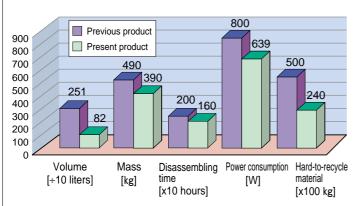
# What Is Product Assessment ?

Product assessment is a method of evaluating an environmentally conscious product. A product of this type is examined at the design stage and is evaluated at the design examination and new product evaluation stages to reduce its environmental loads through the phases of parts and material procurement, manufacturing, distribution, use, recycling and disposal. An environmental consciousness level is assigned to the product according to its evaluation scores and whether the given requirements are met or not.

# Major Instances of Environmental Load Reduction by KE7810A

Volume: Hoppers for weighing objects, which had been in a radial arrangement, were modified into a series arrangement thus saving space.







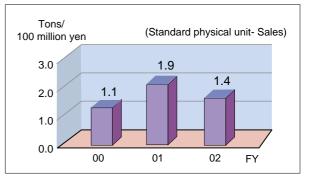
KE7810A Automatic Combination Weigher

The KE7810A Clean Multi-scale Cube is a compact highspeed weighing machine appropriate for both weighing and human use, which measures the mass of various objects in suitable quantities by means of balances. It groups them and then ejects the predetermined mass.

# Energy Conservation for Products

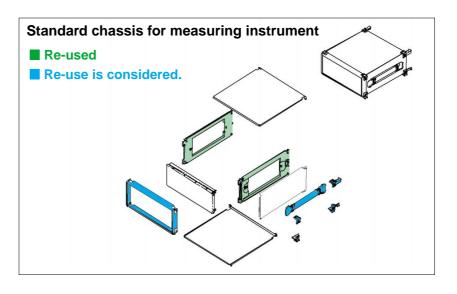
Anritsu introduced product assessment in 1994 and set targets related to the development of resource-saving products in 1997 as a framework for its product energy conservation efforts. It adopted the aim, from 2002, of "developing five or more products per year featuring a power consumption saving of 30% or more" and has been pursuing energy conservation in customer products. In 2002, Anritsu developed seven such products and reduced CO<sub>2</sub> emissions at customers' premises by 798 tons. Anritsu will continue introducing frontier energy conservation expertise in order to help prevent global warming.

#### Reducing CO<sub>2</sub> by using our products



## Resource conservation Design

Various attempts at resource-saving designs, including product size and weight reduction, reusing parts and using recyclable material, have been made to effectively utilize limited resources. Molded resin parts were re-used following the reuse of standard die-casting chassis, which began in 2001. In 2002, uniform material was introduced for molded plastic parts. We also started considering using aluminum for those posts and nuts that are fixed to an aluminum chassis, thus increasing the recycling possibilities.



## Clean Products

The key approach to building clean products is to prevent hazardous substances from spreading. To achieve this goal, we are doing the following:

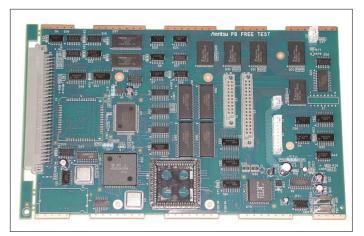
- 1) Stopping using hazardous substances
- 2) Replacing with less hazardous substances
- 3) Assessing the hazardous content of products

#### Hexavalent Chromium-free

The use of electrogalvanized steel sheets (SECC) containing hexavalent chromium was reconsidered in 2002. It was decided that these steel sheets be replaced with chromium-free electrogalvanized steel sheets or stainless steel sheets which do not need to be treated.

#### Lead-free Soldering

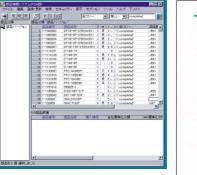
The solder used on electronic equipment contains lead. When these electronic products are disposed of, lead in the solder may, as a result of acid rain, leach out and pollute the environment. Anritsu has established core technologies for practical lead-free soldering by reviewing soldering materials and equipment, developing highreliability packing techniques, and gathering information to achieve lead-free soldering of purchased electronic components, etc. In 2002, we completed two guides, one on design, the other on manufacturing, as aids in the manufacture of products using lead-free soldering. At the same time, lead-free manufacturing equipment was increased and improved. The lead-free soldering technique was demonstrated on five models. We intend to apply this technique to all of our new products in 2004 and in the future.



Printed-circuit board suitable for lead-free soldering

### Green Procurement

In June, 1999, we compiled the "Anritsu Green Procurement Guideline–for Product Development", thus promoting the procurement of environmentally conscious materials. In 2002, we investigated electronic parts for lead-free soldering, and built a database entitled "Information on Parts for Leadfree Soldering" and made it available to our design department. We will make a similar study of other hazardous substances, and will construct a system that will enable the preferential selection of environmentally conscious items at the design and development stages.



Information on Parts for Lead-free Soldering



/inritsu

# **Excellent Eco Product**

Products meeting certain environmental consciousness criteria and ranking first in the industry in environmental consciousness properties are defined as "Excellent Eco Product". Environmental information on "Excellent Eco Product" is given in catalogs and on our homepage. In 2002, the MD1231A IP Network Analyzer, MT8510A Service Tester and KW6412BF12/BP12 Checkweigher were added to our line of "Excellent Eco product". There are five models in this line of products at present after the last review of existing models for registration.

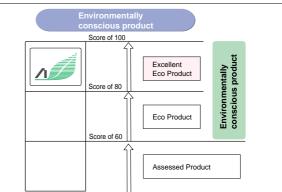
### Major environmentally conscious criteria:

- 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** 

"Excellent Eco Product" are marked with the sign at left and accompanied by associated environmental information.



Excellent Eco Product: Score of 80 or more. Meets the criteria of an Excellent Eco Product. Eco Product: Score of 60 or more. Meets the criteria of an Eco Product.

Assessed Product: Meets the criteria of an Assessed Product.

# MD1231A IP Network Analyzer

Product Outline

Compact and light (5 kg) measuring instrument for network maintenance. Accommodates a bit rate range of 10 M bits/s to 1 G bits/s.

Major environmental consciousness properties

Portable instrument with compact and light individual components. With only the basic essential functions and a reduced number of module units, this model is a great power saver.

Volume: reduced by 54% Mass: reduced by 54% Power consumption: reduced by 88%

## •MT8510A Service Tester

Product Outline

A simple tester intended for the W-CDMA cell phone terminal. Protocol, RF reception/transmission and communication tests can be made at the W-CDMA cell phone terminal, with call connection software for the W-CDMA installed in the MT8510A (main body).

Major environmental consciousness properties

The basic essential functions were retained after reviewing all the functions. Reductions in size and weight as well as power savings were achieved.

Volume: reduced by 53% Mass: reduced by 66% Power consumption: reduced by 69%

## •KW6412BF12/BP12 Checkweigher

Product Outline

Measures the weight of pieces or batches transported on a belt conveyor along a food, medicine or machine parts production line or the like and checks for any missing item. A high-speed, high-precision checkweigher using newly developed electromagnetic balance.

Major environmental consciousness properties

Equipped with a conveyor motor under high-efficiency DC control, this model saves power.

Power consumption: reduced by 32%



MD1231A IP Network Analyzer



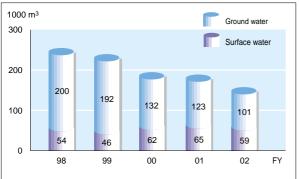
MT8510A Service Tester

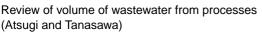


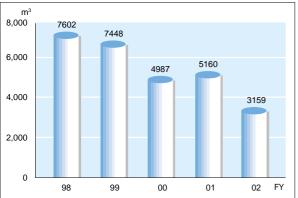
KW6412BF12/BP12 Checkweigher Compatible with HACCP

In order to guard against environmental risks resulting from business activities, Anritsu abides by existing statutory regulations intended to conserve water, preserve clean air, control noise and so on and follows self-imposed controls that are stricter than these regulations.

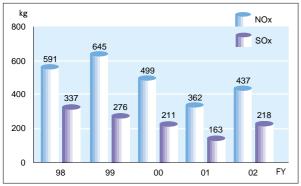
Review of water consumption in our factories (Atsugi, Tanasawa and Tohoku Anritsu)



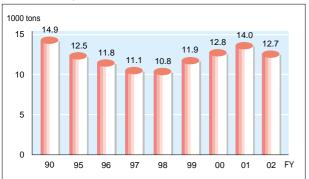




Review of NOx and SOx emission (Azabu, Atsugi and Tohoku Anritsu)



Review CO<sub>2</sub> emission due to energy consumption (Azabu, Atsugi and Tohoku Anritsu)



## Water Conservation

A large volume of water is used in, and discharged from, chemical treatment processes including plating as well as the manufacturing process for semiconductors or other devices. In Atsugi and Tanasawa we are trying to conserve water resources by improving washing methods, and by recycling cooling water, etc. In October 2002, all intra-company chemical treatment processes were abolished. Thanks to these steps, in 2002, water consumption at our production works was 15% less than in the previous year. Although Tohoku Anritsu does not have a facility and a hazardous substance process specified by the Water Pollution Law, etc., it has introduced automatic adjusting and monitoring equipment for pH to control its own wastewater.

# Ground Water

Periodically, as part of its water conservation efforts, six organic chlorine substances, including trichloroethylene, are being analyzed and monitored at Atsugi and Tohoku Anritsu's ground water wells. In 2001 and again in 2002, tetrachloroethylene was detected at Atsugi in an amount that exceeded the allowable minimum prescribed by the environmental criterion. Anritsu, however, has never used this substance in the past, and a soil investigation revealed that Anritsu was not responsible for it. At Tohoku Anritsu all substances were found to be within acceptable limits.

## Environmental load reduction to the atmosphere

At Atsugi, in 1995, heavy oil A was replaced with kerosene as boiler fuel thus reducing the environmental load. In 1997, all sootemitting facilities were replaced with small boilers using city gas only. In 2001, heavy-oil boilers for room heating were replaced with an air-conditioning system at head office. Tohoku Anritsu retains boilers using heavy oil A as fuel, but began in 1999 to use low-sulfur heavy oil A (sulfur content approx. 0.08%) in place of regular heavy oil A. This is an example of how Anritsu is endeavoring to reduce the environmental load on air from its facilities and others as prescribed by the Air Pollution Prevention Law, etc. Those substances from prescribed processes were extracted for measurement and monitoring by Anritsu to preserve clean air.

# Factory- and Office-based Energy Conservation Activities

Electric power accounts for approximately 96% (CO<sub>2</sub> emission calculation) of the energy consumed by Anritsu. At Azabu and Atsugi, heat accumulation, including ice making, was introduced in order to save power. Those lights that were not needed were turned off, and other attempts were made to reduce the wastage of electric power. In order to increase these efforts in 2002, inverter air-conditioners and power-saving air-conditioners were introduced into the clean rooms required more power consumption and separate rooms, respectively. The lights are kept off during breaks. The power is kept off when equipment is idle, and the air-conditioners for unused rooms are also kept off. Thus power consumption is strictly controlled to prevent wastage.

# **Management of Chemical Substances**

## Management of Chemical Substances

The Anritsu Group has specified substances from among all those used by the group that must not be used as well as substances whose use is controlled by statutory regulations or as a result of their hazardous properties. The use of banned substances has already been prohibited within the group, and they will not be used in future. The substances to be used under control should not be used except where their use is absolutely necessary. If they are to be used, the matter will be reviewed by a Chemical Substance Subcommittee. HCFC, methyl bromide, trichloroethylene, tetrachloroethylene and dichloromethane are not to be used by domestic members of the Anritsu Group.

#### Review of chemical substance consumption

The aggregate quantity of all chemical substances (including those for research and packaging purposes) used at the Anritsu Group production centers (Atsugi, Tanasawa and Tohoku Anritsu) in 2002 was 40.2 tons, or 42 tons less than the corresponding quantity in 1999 (a decrease of approx. 51%).

# Waste Reduction

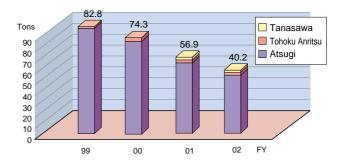
### Advancing Toward Zero Emission

In order to contribute toward the establishment of a recyclingbased society, the Anritsu Group has been making various efforts to reach its final goal—"Zero Emission"\*1. At Atsugi, waste pre-sorted into 35 types is collected in an effort to promote recycling. The goal has already been reached at Tohoku Anritsu by reducing plastics by processing it in a blast furnace, converting the sludge from septic tanks into fertilizer and by other measures. At Atsugi, the recycling of some plastics as well as the sludge from those facilities processing wastewater produced from various processes is being considered. The aim is to reach their goal by 2004.

\*1 Zero Emission: The Anritsu Group defines "Zero Emission" as "the terminal state characterized by reducing waste to be buried in reclaimed ground to 1% or less of the total volume of waste generated".



Banned substances	CFC (chlorofluorocarbons), halon, carbon tetrachloride, 1,1,1-trichloroethane and HBFC (hydrobromofluorocarbons)
Substances to be used under control	HCFC (hydrochlorofluorocarbons), methyl bromide, trichloroethylene, tetrachloroethylene, dichloromethane, HFC (hydrofluorocarbons), PFC (perfluorocarbons) and sulfur hexafluoride





Collection boxes for beverage bottles



Separate collection boxes

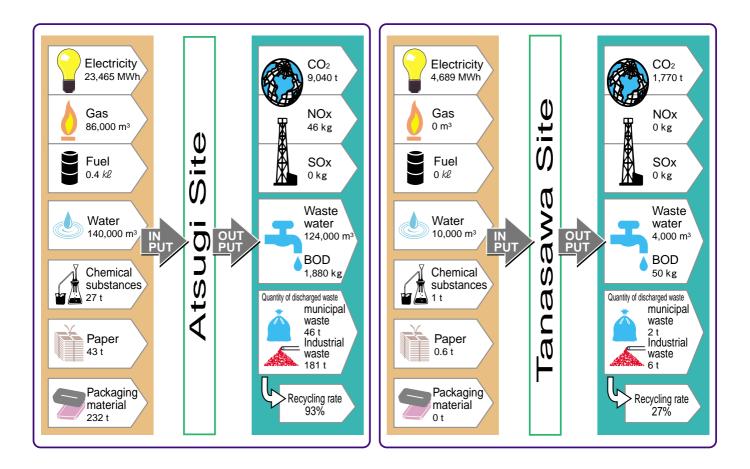
# **Contribution to Local Community**

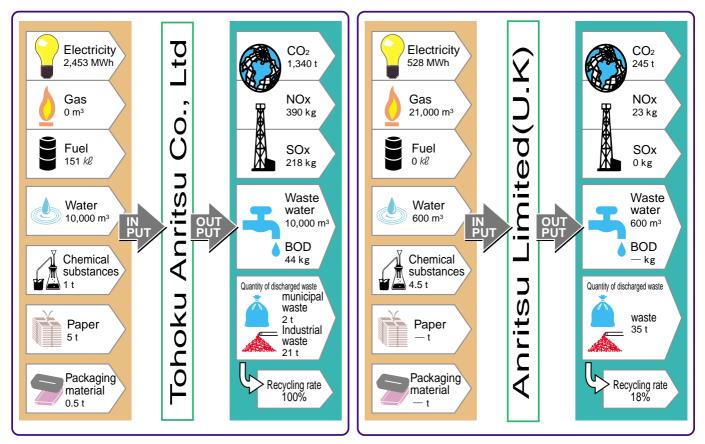
### Contribution to Local Community

The Sagami River Clean-up Campaign, the Clean Atsugi Campaign and the clean-up activity for the Atsugi site are among Anritsu's activities involving the cleaning-up of dry riverbeds, parks and roads intended to promote harmonious coexistence with local communities. Tohoku Anritsu is undertaking volunteer activities on its own aimed for the benefit of the local community.



Sagami River Clean-up Campaign





# **Review of Our Environment Management Activities**

<b>2000</b> 2002 Organized Environmental Promotion Center unified disparate environment-related organizations.
Expanded the scope of ISO14001 accreditation to include Tanasawa Si
and Anritsu group in the Atsugi area.
Acquired the license of industrial waste disposal contractor for
Recycling Center.
2001 Decommissioned the boilers for heating in the Head Office.
Expanded the scope of ISO14001 accreditation to include the Head Office.
2000 Acquired ISO14001 certification for Anritsu Limited (U.K.).
Established Anritsu Eco Product system.
Constructed Recycling Center.
1999 Compiled "Anritsu Green Procurement Guideline - for product development."
Acquired ISO14001 certification for Tohoku Anritsu.
1998 Acquired ISO14001 certification for Atsugi Works.
Received commendation from the Manager of the Kanto International
Trade and Industry Bureau as an excellent 'greened' factory.
Organized the Environmental Engineering Group in the Technology
Division.
Organized the Lead-free Soldering Committee.
1997 Started moves to receive ISO14001 accreditation.
Promulgated Anritsu's environmental policy.
1996 Joined the greenery purchase network.
Compiled the Anritsu Environment Manual.
Decommissioned the facilities specified in the Air Pollution Prevention Law (kerosene boilers) at Atsugi Works.
1995 Started mutual examinations with the Environmental Affairs Council for Associated
Companies of NEC.
Received the Atsugi Area Waste Handling Council Chairman's Award.
1994 Reorganized the ZP Committee at Atsugi Works into the Product Assessment Committee.
Organized the Product Assessment Committee.
1993 Withdrew all ozone-depleting substances (except refrigerants and fire extinguishing
chemicals).
Organized the Environment Management Committee (present Environment System
Committee). Organized the Environment Management Department.
Made adjustments for compliance with the statutory nickel-cadmium regulations.
Introduced an environmental principle and environment management system provisions.
Investigated hard-to-burn bromic substances and disposal methods.
Organized the Energy Committee.
1992 Organized environment preservation design and investigation working groups.
1991 Received the Japan Greening Center President's Award.
1990 Started centralized purchase and distribution of chemicals.
Organized the Environment Management Section within the General Affairs Department at
Atsugi Works.
<b>1000</b> 1989 Organized the Committee for Reduction of Specified Substances.
<b>1989</b> Organized the Committee for Reduction of Specified Substances. 1987 Constructed elevated process pipes at Atsugi Works.
1981 Received an Excellent Environment Preservation Award from the Kanagawa Prefecture
Central Area Administration Center.
1980 Commended as a model 'greened factory' in Kanagawa Prefecture.
<b>1070</b> 1979 Commended by the Kanagawa Prefecture Environment Preservation Council as an
<b>1979</b> Commended by the Kanagawa Prefecture Environment Preservation Council as an excellent environment preservation factory.
1978 Connected discharged water other than rain water to the public sewage system.
1974 Introduced an activated sludge processing facility as the kitchen drain water processing
facility.
1972 Expanded the drain water processing facility at Atsugi Works.
1970 Organized the Zero Pollution (ZP) Committee.
<b>1000</b> 1962 Constructed the wastewater treatment facility following the opening of a chemical
<b>1962</b> Constructed the wastewater treatment facility following the opening of a chemical engineering plant at Atsugi Works.

# ANRITSU CORPORATION



