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Environmental Report 2000

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

ANRITSU CORPORATION

Message from President

The 21st century is sometimes called "the environmental century". In the 21st century, shift from a mass consumption society to a circulatory society is to be accomplished. Accordingly, the year 2000 (or the millennium year) is viewed as the initial year of the circulatory society.

With the corporate motto "original and high level", we have been contributing to the well being of society by excellent technology and reliable products. Back in 1970, we organized an environment preservation committee, introduced advanced pollution preventive equipment, and endeavored to make our operations friendly to and harmonious with the environment. Later we started to produce products which were designed right from the time of development to go through an optimum total life cycle in all phases–production, use and disposal– to the environment's benefit while upgrading our environment management activities. In 1998, we obtained ISO14001 accreditation at the Atsugi Area, our production center. Tohoku Anritsu, a member of the Anritsu Group, also obtained it.

In all aspects of our operations, we have been carrying on a wide range of activities (including resource saving, energy saving, and waste reduction) to contribute to the construction of a circulatory society in the coming 21st century and extending our operations on a global scale as a corporate member of the global community.

This report contains a summary of our environment management activities in fiscal 1999. We will be very happy if it is helpful to you in understanding our concept of environment management and our activities.

Sept., 2000

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Akira Shiomi

President and Representative Director



Contents

Message from the President1
Corporate Profile2
Review of Our Environment Management Activities in Past 3
Environment Management System4
Environmental Objectives and Results for Fiscal 19996
Anritsu's Long-term Environment Management Plan
Environment Preservation7
Energy Saving Activities9
Waste Reduction Activities
Management of Chemical Substances10
Products11
Education and Enlightenment13
Environmental Investments and Expenses14
Contributions to Local Communities and Public Recognition
Public Recognition

Anritsu Group's Environment Management Activities



Corporate Profile

Corporate name: Anritsu Corporation Head office: 5-10-27, Minamiazabu, Minato-ku, Tokyo Origin: Sekisansha founded in 1895 Year of incorporation: Anritsu Electric Co., Ltd. was incorporated in 1931. Representative Directors: Yasuo Nakagawa, Chairman and Representative Director Akira Shiomi, President and Representative Director Capital: ¥13,341,850,000 (as of March 31, 2000) Sales volume: ¥86,553,000,000 (in fiscal 1999) Major products: Information-handling and communication equipment, measuring instruments, miscellaneous devices and industrial machines. No. of employees: 2,657 (as of March 31, 2000)

Associated companies Tohoku Anritsu Co., Ltd. Onomichi Anritsu Co., Ltd. Others



Head office



Atsugi Works



Tohoku Anritsu



Onomichi Anritsu

Review of Our Environment Management Activities in the Past

	Anritsu		Outside the Company
1962	A drain water processing facility was constructed for the chemical engineering plant at the Atsugi Works.	1967	The Pollution Preventive Basic for Environmental Pollution Control Law was enacted. (Japan)
1970	The ZP (Zero Pollution) Committee was organized.	1971	The Environment Agency was established. (Japan)
1972	The drain water processing facility at the Atsugi Works was expanded.	1972	The Rome Club published "The Limits to Growth".
1974	An activated- sludge- processing type facility was introduced at the kitchen drain		
	water processing facility.		
1978	Discharged water other than rain water was led into the public sewerage system.		
1979	Commended by the Kanagawa Prefecture Environment Preservation Council as an		
	excellent environment preservation factory.		
1980	Commended as a model greened factory in Kanagawa Prefecture.		
1981	Received an Excellent Environment Preservation Award from the Kanagawa		
4007	Prefecture Central Area Administration Center.	4007	
1987	Elevated process pipes were constructed at the Atsugi Works.	1987	The Montreal Protocol on ozone-depleting
1989	Organized the Committee for Reduction of Specified Substances and Others.		substances was adopted.
1990	Started centralized purchase and distribution of chemicals.		
	Organized the Environment Management Section, within the General Affairs Dent		
	at the Atsuai Works.		
1991	Received the Japan Greening Center President's Award.	1991	The Law for Promotion of Use of Recycled
1992	Organized environment preservation design and investigation working groups.		Resources (Recycling Law) was enacted. (Japan)
	Worked out a design for total abolition of ozonosphere depleting substances.	1992	The United Nations Conference on Environment
1993	Discarded all ozonosphere depleting substances (except refrigerants and fire extin-		and Development (Global Summit) was held.
	guishing chemicals).		
	Organized the Environment Management Committee (Environment System		
	Committee now).		
	Organized the Environment Management Dept.		
	Made adjustments for compliance with the statutory nickel-cadmium regulations.		
	Introduced an environmental principle and environment management system provi-		
	sions.		
	Investigated hard-to-burn bromic substances and disposalmethods.		
4004	Organized the Energy Committee.		
1994	Committee		
	Organized the Product Assessment Committee		
1995	Started mutual examinations with the Environmental Affairs Council for Associated	1995	The Law on Promotion of Collection of Presorted
1000	Companies of NEC.	1000	Containers and Packages, Conversion into New
	Received the Atsugi Area Waste Handling Council Chairman's Award.		Merchandise and Other Matters (Packaging
1996	Joined the greenery purchase network.		Recycling Law) was enacted. (Japan)
	Compiled the Anritsu Environment Manual.		The First Conference of Parties to the UN
	Discarded the facilities specified in the Air Pollution Prevention Law (kerosene boil-		Framework Convention on Climate Change
	ers) at the Atsugi Works.		(COP1) was held (in Berlin).
1997	Kick-off for ISO14001 accreditation	1996	ISO 14001 (Environment management system)
	Promulgated Anritsu's environmental policy.		was issued.
	Promulgated the environmental policy for the Atsugi Area.	1997	The 3rd Conference of Parties to the UN
1998	Adopted PPC paper wholly made of recycled old paper.		Framework Convention on Climate Change
	Acquired ISO 14001 certification for the Atsugi Works.		(COP3) was held (In Kyoto)
	Received commendation from the Manager of the Kanto International Trade and	1998	The Law for Conversion of Specified Home
	Industry Bureau as an excellent greened factory.		Equipment into Products (Home Electric Appliance
	Organized the Environmental Engineering Group in the Technology Division.		Recycling Law) was enacted. (Japan)
	Organized the Lead-free Soldering Committee.		

Basic Principle

In July, 1995, we disclosed our management ideal including the wording "Let's maintain our humanity, filled with sincerity, fraternity and enthusiasm", which gives the first priority to respect for humans. In September, 1997, we promulgated the Anritsu Environmental Policy based on that ideal, in which the Company swears to "direct full attention to the environment and promote the construction of an enriched society in which man and nature will harmoniously coexist".

The Anritsu Code of Conduct promulgated in December, 1997 also calls for observance of the applicable statutory regulations and efforts to protect the environment within and outside the Company. Every employee endeavors to act friendly to the environment, with the ultimate aim of passing the earth intact to the next generation.

Environmental Policy

Environmental Principle

ANRITSU will pay close attention to the development and production of earth-friendly products and contribute with wholehearted devotion to the creation of a society in which it is possible for humanity to exist in harmony with nature.

Action Guideline

ANRITSU will act on a preference of a sound environment in all spheres of business activity for the creation of a livable society.

(1) ANRITSU will practice an environmental management activity with due regard to the impact upon the globe in all spheres of business activity from development and design to scrapping.

(2) ANRITSU will set environmental objectives and targets with an organizational and operational structure to perform the environmental management activities. Moreover, Anritsu will implement the internal audit, and establish and maintain the environmental management system that is constantly improved.

(3) ANRITSU will abide by legal and regulatory controls and with the setting of autonomous management standards, endeavor to continuously improve the environmental performance within the limits of the technical and economical possible.

(4) ANRITSU will promote the energy and resource conservation and waste reduction measures in terms of preventing pollution. Furthermore, Anritsu will take precautionary measures in order to prevent leakage, etc. of wastewater and chemicals in an accident or emergency.

(5) ANRITSU will notify this environmental policy in the bulletin and documents in order to make it known to all the company members without exception, and conduct environmental education and training with the aim of increasing understanding and consciousness thereof.

(6) ANRITSU will disclose this environmental policy when it is requested by persons or groups concerned.

Environment management activities

In 1970, the ZP (Zero Pollution) Committee was organized at the Atsugi Works. In 1993, the Environment Management Committee (now the Environment System Committee) was formed to promote environment management throughout the Company. The Environment Management Department was organized in the same year to promote environment management activities.

The main environment management organization is supervised by the director in charge of environment management (now by the General Environment Management Supervisor), assisted by the Environment Management Dept. and the Environmental Engineering Group in the Technology Division, which is in charge of environmental engineering.



PDCA for environment management

Anritsu has been enthusiastically promoting the introduction of an environment management system by reducing loads on the environment and making continual improvements through the PDCA (Plan-Do-Check-Action) cycle. A long-term environment management plan and an annual environment management plan were derived from the environmental policy. Approved by the Environment System Committee and the Environment Management Committee for the areas, these plans were passed on to and executed

by departments	and employees.
The environme	nt management

The environment management system calls for voluntary internal environment assessments, and accordingly, periodical internal environment assessments are carried out. We took part in mutual environment assessments by the Environmental Action Council for the associated companies of NEC, acquired ISO14001 certification (ISO140001 is an international environmental standard) and underwent an examination by a third-party organ.

ISO-Certified Members of Anritsu Group				
Atsugi Area of Anritsu	Sept., 1998	JQA-EM0210		
Tohoku Anritsu	Oct., 1999	JQA-EM0560		



Resource saving, energy saving and other environment-related targets set for 1999 were all attained.

(Achievements as against targets for 1999)

Items	FY 1999 Objective	FY 1999 Result	Evaluation
Waste reduction • Reduction of the volume of industrial waste committed for disposal by 73% of the corresponding volume in fiscal 1990 in terms of unit initial input by fiscal 2003.	63%	67%	0
 Resource saving and energy saving Reduction of electric energy consumption by 21% of the consumption in fiscal 1990 in terms of unit initial input by fiscal 2003. Development of 10 or models per year for resource saving by 10% or more. (Items: Volume, mass, decomposition time and power consumption) Reduction of copy paper consumption by 15% of the consumption in fiscal 1998 by fiscal 2003. 	18% 10 models (2 or more items) 5%	21% 16 models (2 or more items) 13%	0000
Prevention of pollution • Maintenance of zero excess over the limit given in the voluntary control criterion for inorganic drain water.	0	0	0
Reduction of the risks due to chemicals • Action against the risks due to chemicals • Reduction of cyanic compound consumption by 73% of the consumption in fiscal 1990 by fiscal 2003.	3 instances 70%	8 instances 70%	000
Greening • Increase of green-procurement stationery items to 80 by fiscal 2003.	20 items	29 items	0

O: Attained X: Not attained

Anritsu's Long-term Environment Management Plan

Anritsu formulated a long-term environment management plan and has been making consistent improvements ever since. In fiscal 2000, it made plans for reduction of the consumption of solder containing lead and reduction of waste to zero to contribute to the construction of a circulatory socio-economic structure. It will analyze its current activities, build various data bases and carry on more vigorous and more advanced activities.

(Anritsu's long-term environment management plan)

	Long-term environment management plan	FY 2000 Objective
☆ ☆	 Waste reduction (recycling) Reduction of the volume of industrial waste incinerated/buried by 77% of the corresponding volume in fiscal 1990 by fiscal 2003. Raising of the industrial waste recycling rate to 40% by fiscal 2003. Waste reduction to zero by 2010. 	70% 32% -
	 Resource saving and energy saving Reduction of electric energy consumption by 18% of the consumption in 1990 in terms of unit initial input by 2003. Annual development of 10 or models for resource saving by 10% or more. (Items: Volume, mass, decomposition time and power consumption) Reduction of copy paper consumption by 15% of the consumption in 1998 by 2003. 	17% 10 models (Average 4 items) 8%
	Prevention of pollution • Maintenance of zero excess over the limit given in the voluntary control criterion for inorganic drain water.	0
র্ম রু	 Reduction of the risks due to chemicals Action against the risks due to chemicals Raising of the usage rate of Anritsu-made MSDS's for production purposes to 100% in fiscal 2003. Reduction of cyanic compound consumption by 73% of the consumption in fiscal 1990 by fiscal 2003. Reduction of the consumption of solder containing lead by 50% of the consumption in fiscal 1997 by the end of fiscal 2001. 	3 instances 20% 70% –
	Greening • Increase of green-procurement stationery items to 80 by fiscal 2003.	40 items

☆: New plan

To keep water and air clean and prevent noise, Anritsu sets voluntary control criteria more severe than the statutory regulations, periodically conducts analysis and measurement and tries to minimize the environmental loads within and outside the Company's business establishments. In fiscal 1990, everything was below the limits prescribed by the Company's own criteria.

Water

Both domestic drain water from Anritsu's premises and drain water from its production processes are led into the public sewerage system. Approx. 220,000 m³ of water is used annually at the Atsugi Works. The drain water from these production processes, which include a plating process, is neutralized and decomposed or otherwise made harmless before leading it into the public sewerage system. The water discharge criteria for the sewerage system are composed of tolerance limit figures related to human health (health-related limits) and those related to the living environment (living-environment-related limits), and those criteria are prescribed by law and ordinances. Voluntary control criteria more severe than those are set by Anritsu. The Company conducts analysis and measurement about 5,000 times a year to keep the drain water at a satisfactory level of cleanliness while using the circulating water for production equipment to economize on water.

Air

At the Atsugi Works, the waste incineration furnace was abolished in 1976, and in 1996 the kerosene boiler was replaced with a small city gas boiler imposing a lighter environmental load. Although equipment and other items prescribed by the Air Pollution Prevention Law and ordinances are not yet provided, the facilities or substances which may pollute the air are periodically inspected voluntarily.

Containment of noise

To preclude the possibility of adverse effects on neighboring areas, equipment is examined within the Company prior to its installation, and sound-proof rooms and walls and others means are provided to contain noise.

Measurements of drain	water properties	(Atsugi Works)	Unit:	mg/ (2
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		Motor diapha		
	Object of measurement	Critorio given by low		ment (max.)
	Object of measurement	and ordinances	criterion	FY 1999
es	Cyanic compounds	1	0.6	0.44
it figu	Lead and its compounds	0.1	0.06	0.009
Hea	Hexachrome compounds	0.5	0.3	_
	Temperature °C	40	35	28.8
	Hydrogen ion concentration	>5.7. <8.7	6.0 to 8.4	6.8 to 8.2
	index, pH	, en, en		
s	Requirement amount of	300	180	12.8
tem	biochemical oxygen			
ed i	Floating matter mass, SS	300	180	5.2
elat	Extract from n-hexane	5	3	1.4
ent-r	lodine consumption	220	130	3.8
hme	Phenols	0.5	0.3	0.2
viro	Copper and its compounds	3	1.8	0.50
g-en	Zinc and its compounds	3	1.8	0.12
ivinç	Iron and its compounds	10	6	0.21
	Manganese and its compounds (soluble)	1	0.6	0.03
	Chromium and its compounds (soluble)	2	1.2	0.08
	Fluorine and its compounds	15	9	0.37
	Nickel compounds	1	0.6	0.44

Note: Hexachrome compounds are analyzed only if the chrome analysis figure exceeds the limit prescribed by the voluntary control criterion.

Measurements for air (Atsugi Works)

Unit: ppm

••••••••••••••••••••••••••••••••••••••						
Substance	Water disch	Water discharge criterion				
Cubstance	Ordinance Voluntary control		FY 1999			
Hydrogen chloride	5	3	not detected			
Cyanic compounds	10	6	0.3			
Toluene	100	60	6.7			
Xylene	150	90	4.4			
Formaldehyde	5	3	1.3			

Noise measurements (Atsugi Works) Unit:					
Whore measurements were made	Regulatory	Regulatory criterion			
Where measurements were made	Under ordinance	Self-control	FY 1999		
Boundary line of the eastern part of the Atsugi Works premises			56		
Boundary line of the western part of the Atsugi Works premises			57		
Boundary line of the southern part of the Atsugi Works premises	70	68	59		
Boundary line of the northern part of the Atsugi Works premises (Near the main road)			67		

Total abolition of ozonosphere depleting substances

Anritsu's products do not contain any ozonosphere depleting substances such as fluorocarbons, halon or any other chlorine organic solvent. All of the ozonosphere depleting substances in the production processes were discarded late in fiscal 1993. We are taking steps currently to discard fluorocarbons for air-conditioning refrigerants, halon for fire extinguishers and fire fighting facilities, etc.

Investigation of underground water pollution

We totally discarded trichloroethylene in fiscal 1970 and 1,1,1-trichloroethane in fiscal 1993. Underground water was analyzed repeatedly to detect any organic chlorine compound. A similar analysis was conducted also in fiscal 1999, and it was ascertained that trichloroethylene, 1,1,1-trichloroethane, 1,1-dichloroethylene and cis-1,1-dichloroethylene were within the appropriate tolerance limits prescribed by the criteria.



Greening of factory

Tall and medium height trees with flowers blooming in different seasons were planted throughout the premises of the Atsugi Works to harmonize with the environment of the surrounding area. Thirty percent of the premises was planted, and the greenery is well maintained.

In 1998, the Atsugi Works was commended with the Kanto International Trade and Industry Bureau Manager's Award for its fine factory greening contributing to improvement of the local community's environment.



Kanto International Trade and Industry Bureau Manager Award to Excellent Greened Factory

We try to reduce the consumption of various kinds of energy as part of our efforts to prevent the warming of the earth. These efforts include the introduction of invertercontrol equipment, lukewarm water/ice heat accumulation facilities and power-saving facilities.

Energy consumption

We consume 26,900,000 kWh of electric power, 160,000 m³ of gas fuel (city gas), and 28 kl of petroleum fuel (heavy oil and light oil) per year. Electric power consumption accounts for 96% of the total energy consumption in terms of carbon derived from carbon dioxide. In view of this, we are reducing electric power as part of our efforts to prevent the warming of the earth.

Energy saving

Ninety-two percent of our total power consumption is consumed at the Atsugi Works. The power consumption per unit of building floor space in fiscal 1999 was 273 kWh/m² (31 kg/m² in terms of carbon derived from carbon dioxide) or down by 21% of the volume in fiscal 1990.

Major energy saving activities and measures in fiscal 1999

Waste Reduction Activities

Various kinds of waste originate in the production activities at factories, and they pose social problems including pollution and shortage of space for new landfill sites. By 1999, emphasis was put on reduction of the industrial waste committed for disposal. We will push forward recycling enthusiastically and promote industrial waste reduction.

Generation of industrial waste

There are sludge, waste plastics, waste acid, waste alkali, waste oil, scrapped metal, etc. at the Atsugi Works where 93% of Anritsu's total volume of industrial waste is generated. Some of them are recycled in different ways according to their properties, and the rest is properly disposed of.

Reduction objective and result

• Objective in FY 1999

Reduction of the volume of industrial waste committed for disposal by 63% of the volume in fiscal 1990.

Result

Reduced by 10% of the reduction in the previous year and by 67% of the volume in fiscal 1990 in fiscal 1999.

Major waste reduction activities and measures in FY 1999 In May, 1999, the kitchen drain water processing facility was A new building which includes a dining room, conference room, radio wave absorbing room, general office, etc. was constructed at the Atsugi Works, and it was partially occupied in May, 1999. This building is equipped with various energy-saving means including inverter-control lights and lukewarm-water/ice heat accumulation systems. Replacement with low loss transformers (3 units that saved 13,750 kWh per year), optimum operation of air discharge fans (8 units that saved 24,620 kWh per year), etc. were carried out for the existing buildings, and air-conditioning temperature control by reference to the air-conditioning control criteria and others were also introduced.

Lights are switched OFF prior to a break. Employee enlightenment activities (intra-company news flashes, PR on an illuminated sign, energy saving patrols, etc) are also carried out to promote energy saving without waste.



renewed and improved at the Atsugi Works, and the generated sludge was reduced by 26 t (70%) from the level in the previous year. Steps were taken to have the required waste presorting carried out, and the volume of waste plastics was reduced by 56 t (34%) from the level in the previous year. Environmental education was conducted for employees. Moreover, we initiated other enlightenment activities including placement of a board with easy-to-understand presorting instructions illustrated by photos at waste pickup places. Waste plastics are turned into a reducing agent and a gas in a blast furnace, waste oil and waste solvents are converted into fuel, and other recycling actions are also performed.



As an important part of the environment management activities, our management of chemical substances include use of chemicals, waste reduction, actions against risks and replacement of hazardous substances.

System of management of chemical substances

A preliminary evaluation of all the chemicals which are to be introduced is performed to see if they are suitable for introduction. Chemicals are purchased by a central section.After confirmation of permission and registration, orders are given to suppliers outside the Company. The Environment Management Dept. determines the volume of chemicals used, volume purchased, volume disposed, etc. for the individual sections using such chemicals through an on-line control system and performs control actions through that system.

Reduction of volume of chemicals used

The total volume of chemicals in fiscal 1999 was reduced to half of the volume in fiscal 1995. We aimed at reducing cyanic compounds, which are highly hazardous, and reduced them in fiscal 1999 by approx. 70% of the volume in fiscal 1990.

PRTR

We use 29 different chemicals specified by the PRTR Law*. The consumption of toluene and that of xylene were both one ton or more in fiscal 1999. The consumption levels of these two substances are likely to be less than one ton in fiscal 2000 thanks to improvement of the processes.

Actions against risks

Double-layer chemical storage tanks and leakage sensors were introduced to prevent leakage of highly hazardous chemicals, which might lead to pollution. An emergency procedure manual was compiled in preparation for possible leakage, and equipment checks and procedure tests are periodically performed.

Replacement of hazardous chemicals

We are now considering replacing organic chemicals with chemicals having less effect on the environment, which will include preliminary treatment and use of a chrome-free paint.



Results of PRTR investigation Unit: tons							
Substance	Quantity	Volume di	scharged/ti	ransferred	Volume	Volume	
used Air Waters W		Waster	/disposed	recycled			
Toluene	2.33	0.58	0.00	0.49	1.26	0.00	
Xylene	1.59	0.31	0.00	0.18	1.10	0.00	

*PRTR Law: Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management. If the volume of the specified chemicals handled by an enterpriser exceeds one ton per year, the enterpriser is obliged to determine the volume of such chemicals discharged/transferred to the environment and report it to the national government through the prefectural/municipal government.



Chemical leakage test



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Products

In 1994, we organized the Product Assessment Committee, starting the development of environmentally conscious products. Specialized subcommittees were subsequently formed to start overall design for environment. In October, 1998, the Environmental Engineering Group was formed in the Engineering Design Dept. of the Technology Division to collect environmental engineering information, disclose the collected information within the Company and perform other actions. To attract attention to Anritsu products' environmentfriendly design, we started considering the "Anritsu eco-product mark" for our products meeting our environmental standards.

Product assessments

In 1994, we formulated the Product Assessment Procedure to ensure that our products are environment-friendly, and this procedure is followed for all development projects. At the development and designing stages, products are examined in various respects– resource saving, energy saving, service life prolongation, easy disassembling/dismantling, re-use and conversion into a fresh resource–through all processes from materials procurement to manufacturing, distribution, use and disposal. Those products are evaluated at the time of design examination and also at the time of new product evaluation.



Evaluation Report



•Use of network data analyzer

The network data analyzer is an error rate measuring unit for high-speed dedicated digital lines and ISDN lines. The size and weight were sharply reduced by use of integrated circuits with large-scale FPGA's (Field Programmable Gate Arrays) and digital circuits replacing conventional analog circuits.

The power consumption was reduced by use of energy saving parts and low-voltage circuits. Consequently, the unit can operate for many hours on its battery. The number of screws, structural parts, etc. was reduced with a resultant sharp shortening of disassembly time.

Comparison with Conventional Models



Network data analyzer

Trial life cycle assessments (LCA's)

We conducted trial life cycle assessments for quantitative evaluation of the environmental loads at all stages from resource extraction for products to their disposal. These LCA's brought to light a number of tasks including reduction of the power consumption for products and improvement at the manufacturing stage We will gather data at all stages and make them available to everyone in our organization. Development of environmentally conscious products will be promoted by drawing on a combination of the merits of both conventional assessment methods and the LCA method.

Energy-saving design for more products

We became aware of the importance of reduction of the power consumption for products as a result of the LCA's focusing on the volume of carbon dioxide discharged and recognized the reduction as an urgent task. Last year, an energy saving target was set for each of the products in which we are to lead the industry, and

Promotion of environmental friendly procurement

The effect on the environment has to be determined for environmentally conscious products at the time of procurement of their components, (parts, materials, etc.). In June 1999, we promulgated the Anritsu Green Procurement Guidelines for Products, asking suppliers to provide us with information and cooperate with us in environmental friendly procurement and other matters.

(1) Main section

- · Construction and operation of an environment management system.
- Product assessment
- (2) Section on energy saving
 - · Energy-saving parts
 - Proposal of a method for raising energy consumption efficiency.
- (3) Section on substances (control of hazardous substances) Choices are made from the substances named in applicable laws or an international protocol.
 - Six substances which must not be found in a product.
 - Six substances whose inclusion in a product must be limited.
 - Twenty-five substances whose inclusion in a product must be controlled.
 - Five substances whose use in a manufacturing process is prohibited.

Lead-free soldering

Solder containing lead is used to connect electronic parts to a printed-circuit board. When a finished product is thrownout, the lead in the product seeps out under the influence of acid rain or the like, damaging the soil. There is concern about this soil pollution by lead. In December 1998, we organized the Lead-free Soldering Committee for continued study of the matter. In May 1999, we formed working groups in charge of materials engineering, parts procurement, techniques for finishing up printed-circuit boards and device manufacturing technology to carry out



a power consumption plan was made for each major new product. We will put emphasis on energy-saving design by development of new energy-saving technology and use of low-power-consumption parts, that is, by both software and hardware approaches.

• Eight substances whose use in a manufacturing process must be limited. Supply of information from a source outside the Company is indispensable for green procurement. Information on hazardous substances and energy-saving parts is collected through briefings for suppliers, questionnaires, etc., and data bases are formed of the data so collected.



Anritsu Green Procurement Guideline for Products

the following activities:

- Evaluation of the properties and reliability of lead-free solder.
- Parts add-on testing using a printed-circuit board as a specimen.

• Collection of information on the heat resistance performance of electronic parts, the varieties of terminal plating, etc. Others

We aim at establishing a printed-circuit board finish-up process using lead-free solder and will start developing lead-free devices. We hold training courses, seminars, intra-company exhibitions ,etc. open to all employees

Environmental education

Environmental education is given to our employees and subcontractors' employees to make them realize the importance of environment and motivate them into environment preservation activities.

Education program	Month and number of times
Training of new employees	April (once a year)
Practical employee training	January (once a year)
Training of supervisory employees	June (once a year)
Departmental training	From time to time
Training of subcontractors on Company premises	May (once a year)
Training of internal environment auditors	April and December (twice a year)

Environmental engineering seminars

In 1999, we held engineering, engineering education and other seminars featuring the latest information energy-saving technology for products for the Technological Development Dept.



Intra-company exhibitions

In 1993, an environment corner was added to the annual intra-company exhibition. With enlightening presentations of our various environment management activities this corner is open to all members of the Anritsu Group.

Bulletin within our organization

In addition to presentations of environmental information on our environment home page, a page on environment management was added in 1999 to the General Safety News, which is published four times a year.





Environmental Investments and Expenses

To save energy and utilize energy resources effectively, we introduced a thermal storage air-conditioning system and inverter- control equipment and made investments in precautions against risks.



nvironmental investments in 1999	n million yen
Item	Amount
Water pollution prevention	79
Disposal of industrial waste	69
Chemicals-related measures	12
Analysis and measurement	1
Greening	7
Energy saving measures	54
Cleaning	44
Education and environment meetings	64
Environment Management Department's expenses	182
Total	512

Thermal storage air-conditioning system

Contributions to the Local Community

Our employees participate in volunteer clean-up activities and others in an effort for harmonious coexistence with the local community. They took part in the Sagami River Cleaning Campaign and the Clean Atsugi Campaign, picking up rubbish and cleaning roads and other activities.





Public Recognition

Anritsu was publicly commended a number of times in the past for its environment preservation activities.

Description of example the	O	
Description of commendation	Commended by:	Year of commen-dation
Excellent Environmental Preservation Factory	Kanagawa Prefecture Environment Preservation Council	1979
Model Greened Factory in Kanagawa Prefecture	Kanagawa Prefectural Government	1980
Commendation for Excellent Environment Preservation	Kanagawa Prefecture Central Area Administration Center	1981
Japan Greening Center President's Award	Japan Greening Center	1991
Atsugi Area Waste Handling Council President Award	Atsugi Area Waste Handling Council	1995
Kanto International Trade and Industry Bureau Manager	Kanto International Trade and Industry Bureau	1008
Award to Excellent Greened Factory		1990

Anritsu Group's Environment Management Activities

The Anritsu Group contributes toward the creation of an enriched society for the harmonious coexistence of man and nature by establishing and upgrading an environment management system based on the Company's environmental ideal.



Tohoku Anritsu



Onomichi Anritsu

ANRITSU CORPORATION