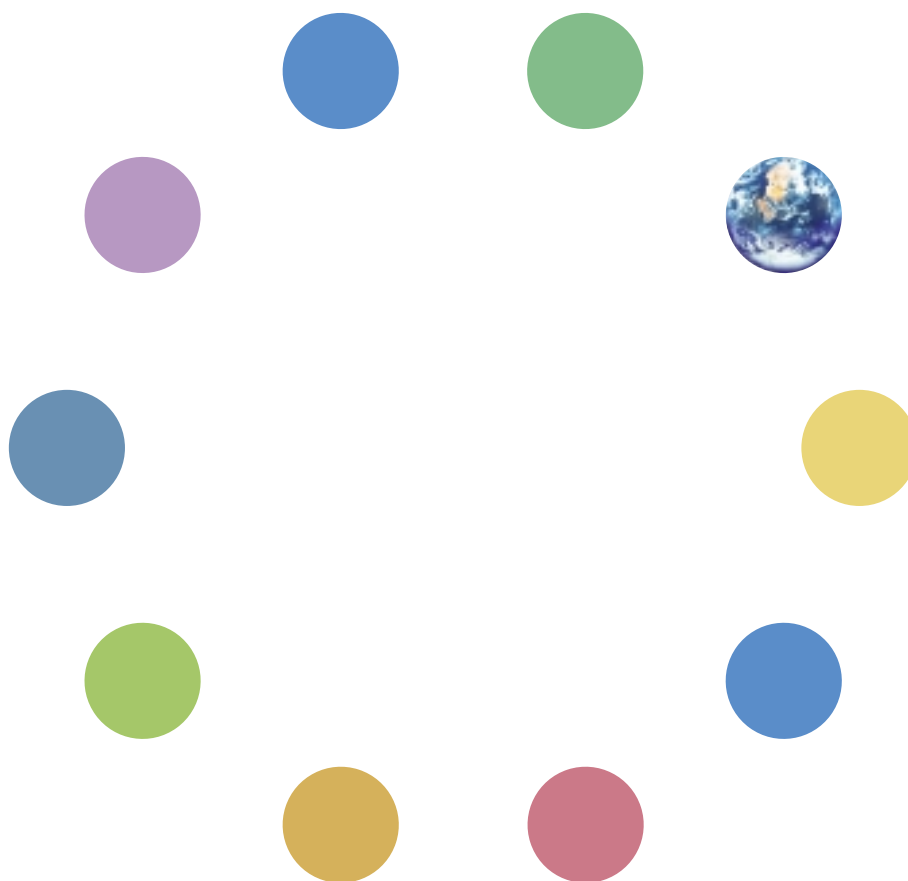


Striving for Harmony with the Earth

SII Group Green Plan

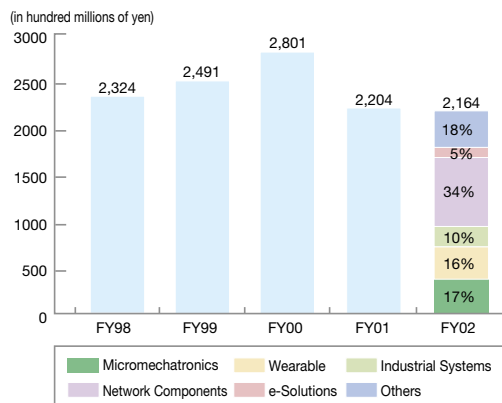


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Company Profile

Company Name:	Seiko Instruments Inc.
Established:	September 7, 1937
Capitalization:	1 billion yen
Fiscal Year-End:	March 31
Products:	<p>Micromechanotics Watch movements, Optical-fiber connectors, Ultrasonic motors, High-tech motors</p> <p>Wearable Watches, PC card type PHS telephones, Electronic dictionaries</p> <p>Industrial Systems Scientific instruments, ULSI design systems, Compressors</p> <p>Network Components LCD modules, CMOS ICs, Micro batteries, Quartz resonators and oscillators</p> <p>e-Solutions Store automation systems, Time distribution/time authentication services, Wireless credit/debit card authorization systems, Mobile phone content services</p> <p>Related Businesses Thermal printers, Color printers, Networking products</p>
2002 Sales:	150.4 billion yen (non-consolidated); 216.4 billion yen (consolidated)
Employees:	4,300 (non-consolidated); 9,400 (consolidated)
Consolidated Sales for Last Five Years:	



About This Report

The SII Group publishes this Environmental Report once each year, for the purpose of publicizing our environment-oriented activities and results. In producing this year's report, we have referred to Japan's Ministry of the Environment's *Environmental Report Guidelines (FY2000 Edition)* and other relevant guidelines.

This year's report is intended to provide a wide range of information about our environmental activities. It includes important information about our efforts to provide "eco-friendly" products, and it provides environmental data from each of our facilities. We consider this report to be a vital component of our effort to communicate with the general public, and we would very much like to get feedback that we can incorporate it into our future environmental activities. We invite your opinions, suggestions, and questions, and we encourage you to fill out and return the survey form at the back of this report.

Scope of this Report

This report focuses on efforts and achievements at the SII Group's twelve major facilities within Japan.

The report is based on results during fiscal 2002 (April, 2002 to March, 2003), but also includes information about subsequent activities and about our outlook for the future.

Contact Us At...

Seiko Instruments Inc.
Environmental Administration Department
8, Nakase 1-chome, Mihama-ku, Chiba-shi, Chiba 261-8507,
Japan

Telephone: +81-43-211-1149
Facsimile: +81-43-211-8019
Email: eco@sii.co.jp
Website URL: <http://www.sii.co.jp/eco/eg/>

MESSAGE



Junichi Hattori
Vice chairman, CEO

Yukihiro Chayama
President, COO, CFO

Ten years have already passed since, in April 1993, the SII Group established the SII Group Green Plan, a program standing for the “three greens” i.e. green process, green products and green life. During this time, we have implemented and promoted various initiatives for environmental issues, progressing in our approach from disparate environmental measures to coordinated environmental management.

The SII Group, which creates products and services using energy and resources, is well aware that adapting to a recycling-oriented society is one of the greatest responsibilities placed upon us by society. For more than 60 years of manufacturing timepieces, we have also supplied long-lasting, energy- and resource-saving types of ICs, liquid crystal displays, batteries, and more based on small, extremely long-lived precision technology. In the future, we plan to continue to cultivate, in environmental fields and elsewhere, both the unique technologies that we have developed as a manufacturer and the creation of new products, thereby continuing to earn the trust of customers and increase the value of the corporation’s existence.

“Green Products”: Environmentally friendly products

To products that meet the SII Group’s environmental standards, we attach the “SII Green Product” label, making their eco-friendly status readily apparent to consumers.

“Green Process”: Environmentally friendly manufacturing

By the end of FY2003, all of our business units will have reached the final stage of achieving Zero Emissions. Aiming at stopping global warming, moreover, we have expanded our initiatives related to, among other things, reducing CO₂ emissions from our manufacturing processes.

“Green Life”: Environmentally friendly living

Needless to say, the efforts of all of our employees are necessary for sustaining our environmental activities. Accordingly, all of our employees have joined together in working to establish an environmentally-minded company of the first order.

We have been publishing an annual Environmental Report since 1996, announcing the SII Group’s initiatives and achievements in environmental protection to all strata of society. We offer the current report for your perusal, and would welcome your opinions and suggestions about our environmental activities, which we will continue improving in the future.

August 2003

Junichi Hattori
Vice chairman, CEO

Yukihiro Chayama
President, COO, CFO

SII GROUP ENVIRONMENTAL POLICY

ENVIRONMENTAL CONCEPT

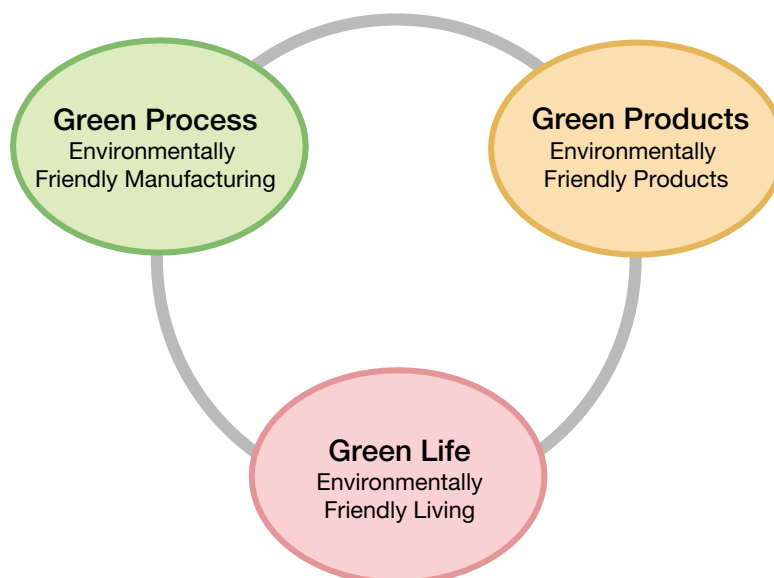
As a good corporate citizen, the SII Group will continue to harmonize its corporate activities with the global environment, protect and improve the environment, and contribute to the establishment of a sustainable society that can coexist with all living things.

ENVIRONMENTAL ACTIVITY GUIDELINES

We must

1. Continue implementing and enhancing our environmental management system.
2. Observe all of laws, rules, regulations and agreements relevant to the environment, and prevent environmental pollution.
3. Continue reducing the impact on the environment through the following actions:
 - (1) Provide products and services that, throughout their lifecycles, minimize their impact on the environment.
 - (2) Save energy and contribute to the reduction of global warming.
 - (3) Save resources and practice the 3 R's: Reduce, Reuse and Recycle.
 - (4) Reduce environmental risks of chemical substances and promote the disuse of harmful substances.
4. Promote SII GREEN PURCHASING and purchase eco-friendly products, parts, materials and services.
5. Enforce internal environmental audits to improve employees' self-management.
6. Contribute to society through our unique activities for environment preservation.
7. Give environment-related seminars and training to all employees to elevate their consciousness, and guide each employee on how to protect the environment in his or her personal life.
8. Proactively disclose, to all classes of society, information about the implementation state of our environmental management system.

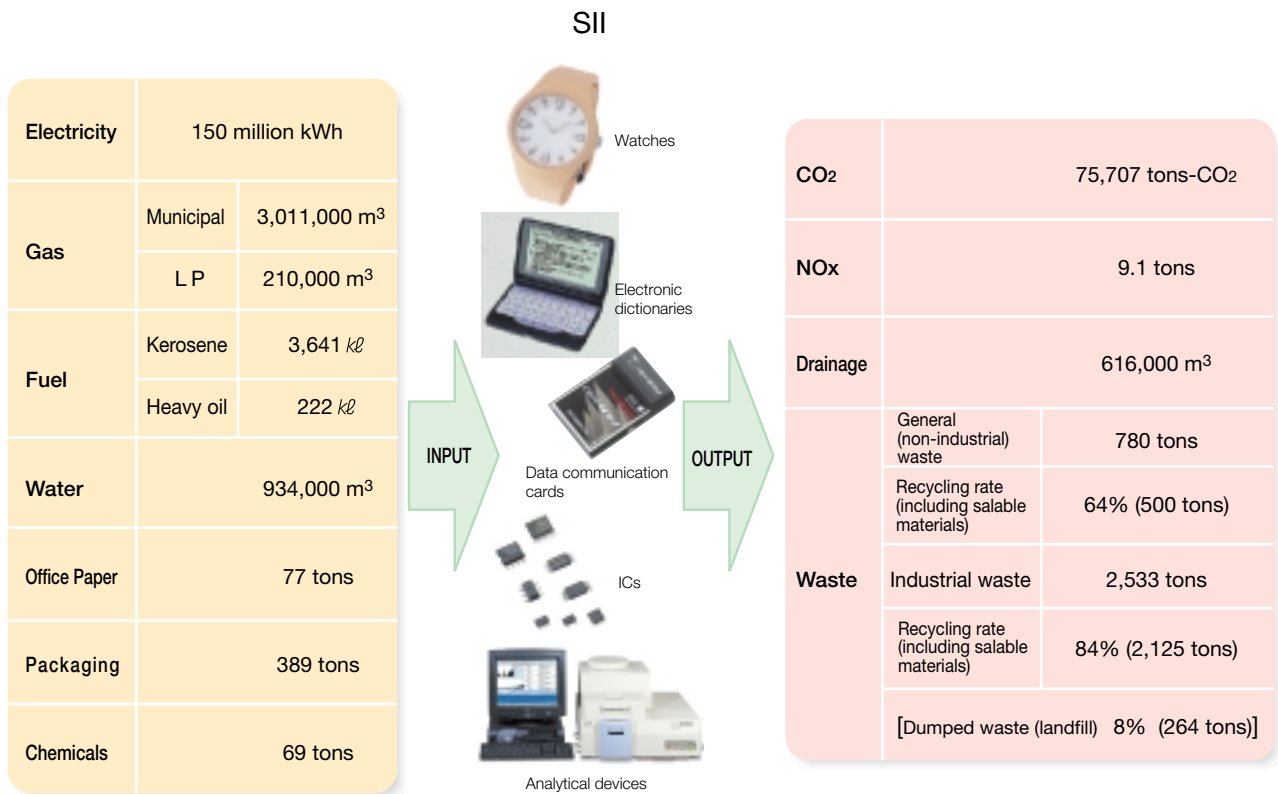
CONCEPTUAL GREEN PLAN SCHEME



INDUSTRIAL PROCESSES AND THEIR ENVIRONMENTAL IMPACT

The SII Group's industrial processes impact on the environment as shown below.

ENVIRONMENTAL IMPACT: INPUTS AND OUTPUTS



INPUTS

Electricity	Power purchased from electric company
Gas	Municipal and LPG
Fuel	Kerosene and heavy oil
Water	Tap water, industrial water, groundwater
Office Paper	Copy-machine paper, printer paper
Packaging	Recyclable paper (as set forth by packaging recycling statutes), plastics
Chemicals	PRTR chemicals, HFCs, PFCs, SF ₆ (PRTR: Pollutant Release and Transfer Register)

OUTPUTS

CO ₂	Generated by use of electricity, gas, oil, etc.
NO _x	Generated by use of gas, oil, etc.
Drainage	Deposited into rivers and sewerage system
General waste	Paper waste and household-type waste generated by or attendant to industrial operations
Industrial waste	Waste oil, waste acids, waste alkalis, waste plastics, ash, sludge, and other such materials generated by industrial operations

ENVIRONMENTAL MANAGEMENT

The SII Group carries out environmental management at the Group level and within each of our business units. We follow a “Planning–Implementation–Checking–Review” cycle to ensure effective strategies to continuously reduce our environmental footprint.

ENVIRONMENTAL MANAGEMENT SYSTEM

Group-wide environment targets are established each year in accordance with the Group’s environmental policy. Each of our business units implements actions based on these targets, and periodically reports results back to the head office. The head office oversees the group’s overall environmental management system.



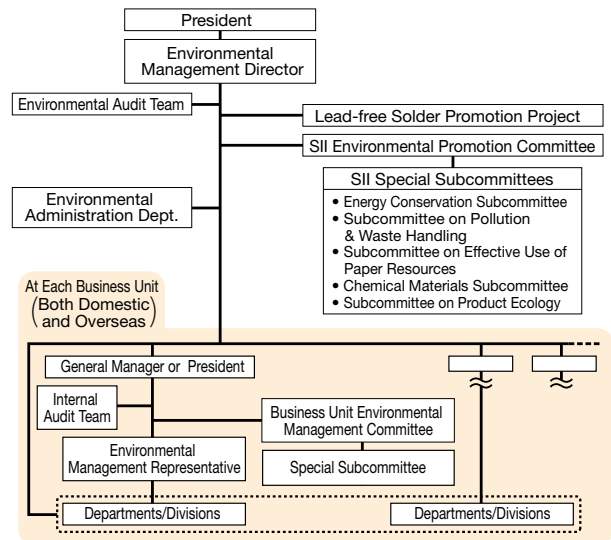
SYSTEM ORGANIZATION

Our environmental management system operates both at the Group level and within each of our business units. Ultimate responsibility rests with our Environmental Management Director, who reports to the President of Seiko Instruments Inc.

The SII Environmental Promotion Committee implements top-level decision-making. General environmental issues—such as energy conservation—are promoted by Group-level subcommittees under the coordination of the head office’s Environmental Administration Department.

In April 2003, we launched a system for promoting each department/division, complementing our existing system for promoting each business unit.

- SII Environmental Promotion Committee
Considers and approves the Group’s environmental activity targets and plans. Exchanges information with business units, and receives environmental-activity status reports from them.
- SII Special Subcommittees
Each subcommittee proposes Group targets and actions related to reduction of environmental impact in a specific area, and carries out appropriate information exchange and communication.



ISO 14001 CERTIFICATION

As of March 1999, all of our major manufacturing units within Japan are ISO 14001 certified. Our business units in Singapore, Dalian (China), Thailand, and Malaysia have also gained certification.

In September 2002, our Western Japan Business Unit became the Group’s first business unit to receive certification. At that time, it adopted a point-scoring system for evaluating and understanding the factors that cause adverse environmental effects. In order to continuously improve environmental protection, this effort not only actively generates activities that directly reduce environmental impact, but also promotes various themes that become more effective in improving the environment the more they are developed; and has steadily been achieving significant results.

• ISO 14001 Certification List

Certified Units and Subsidiaries	Location	Date of Certification
Takatsuka Unit	Matsudo City, Chiba	11/96
Narashino Unit	Narashino City, Chiba	1/97
Miyakubo Unit	Ichikawa City, Chiba	3/97
SII Microtechno Inc.	Omagari City, Akita	4/97
Morioka Seiko Instruments Inc.	Iwate County, Iwate	4/97
Seiko Instruments Singapore Pte. Ltd.	Singapore	5/97
SII Quartz Techno Ltd.	Tochigi City, Tochigi	2/98
Waga Precision Co., Ltd.	Kitakami City, Iwate	6/98
Oyama Unit	Sunto County, Shizuoka	8/98
SII Micro Parts Ltd.	Sendai City, Miyagi	2/99
Ohno Unit	Ichikawa City, Chiba	3/99
Dalian Seiko Instruments Inc.	Dalian, China	6/01
Sukagawa Precision Co., Ltd.	Sukagawa City, Fukushima	9/01
Makuhari Head office	Chiba City, Chiba	10/01
Seiko Instruments (Thailand) Ltd.	Thailand	3/02
Western Japan Business Unit	Western Japan	9/02
Instruments Technology (Johor) Sdn. Bhd	Malaysia	10/02

ENVIRONMENTAL EDUCATION

Success of our environmental activities rests on the meaningful and informed participation of all of our employees. The SII Group provides various types of education designed to provide employees with the awareness, knowledge, and skills necessary to support these activities and produce continuous improvements.

ENVIRONMENTAL EDUCATION

SII headquarters holds various education courses, and business units are also active in planning and implementing education at their sites. In FY2002 SII headquarters held courses for 251 employees, bringing the total number of employees who have passed through these courses to 1,453.

Following each course we distribute a questionnaire to participants, and we use this feedback to continuously improve the quality of the education that we offer.

Education Held at SII Headquarters

General Education

Theme	Participants	Content
Global environmental issues, and the SII Group's measures for addressing them.	New employees	SII Group's environment-related actions and policies
Environment overview, and ISO 14001	Mid-level staff	Environmental concepts and management techniques
Improving systems and performance	Managers	Global environmental trends, and policies and plans for improving performance

Special Education

Theme	Participants	Content
Waste management	<ul style="list-style-type: none"> Employees who handle chemicals and wastes 	<ul style="list-style-type: none"> Reduction and appropriate management of waste Promotion of a recycling-oriented society and reduction of environmental impact
Chemical management	<ul style="list-style-type: none"> Operators of environment-related equipment 	<ul style="list-style-type: none"> Appropriate management of chemical substances and dangerous materials Prevention of environmental risks
Energy saving	<ul style="list-style-type: none"> Manufacturing and production engineers 	<ul style="list-style-type: none"> Energy-saving manufacturing techniques, and trends at other companies
Product design assessment	Product development personnel	Methods for reducing environmental impact of products; case study of eco-friendly products from other companies

Auditor Education

Theme	Participants	Content
Training to become an internal environmental auditor	Auditor candidates from each of our business units	Skills and knowledge required to conduct internal audits in accordance with ISO 14001

CONSCIOUSNESS-RAISING

The "Eco-Town" bulletin board on the SII intranet offers a wide variety of useful information about environmental issues and activities. Employees can visit this site to learn about environmental terminology, to view information about current laws and statutes, and to access a wide range of other information.

Ongoing articles in our newsletter, and environment-related posters and signboards placed throughout our business unit, also serve to remind employees about the importance of environmental issues.

We also post detailed explanatory signs near environment-related equipment at our production sites. These signs explain what this equipment does, how it works, and how it is configured.



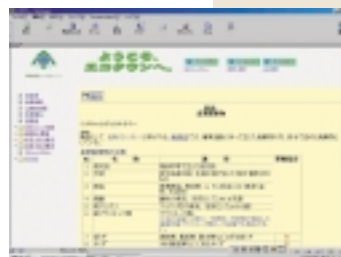
Textbooks for Environment Classes



Environment Education Class



Newsletters



"Eco-Town" Home Page (on the SII Intranet)



Poster with Information about Environment-Related Equipment

FY2002 RESULTS, AND ACTION PLANS FOR FY2003 AND BEYOND

FY2002 RESULTS

Among our waste-reduction efforts in FY2002, the effort to reduce the amount of waste dumped in landfills fell somewhat short of its target, while the others fully achieved their goals, including the creation of "SII Green Product" labeling, which was recently introduced. In addition, we reached, well ahead of schedule, the target for the effective use of paper resources targeted at the end of FY2005.

Score — ○ : Achieved △ : In Progress × : Not Achieved

Action Item	Medium-Term Target	FY2002 Target	FY2002 Actual	Score	See page...
Energy Conservation	By end of FY2010, reduce CO ₂ emissions by 3% from FY1990 level. ● 76,706 tons-CO ₂ → 74,405 tons-CO ₂	77,609 tons-CO ₂ FY2001 -1%	75,707 tons-CO ₂ FY2001 -3.4%	○	11
Waste Reduction	By end of FY2010, reduce total waste generation by 50% from FY2000 level. ● 4,322 tons → 2,161 tons	3,637 → 3,528 tons FY2001 -3%	3,313 tons FY2001 -9%	○	14
	Reduce dumped waste (landfill) to zero by end of FY2003. (Achieve Group-wide Zero Emissions within Japan.)	247 → 240 tons FY2001 -3%	264 tons FY2001 +7%	△	
Effective Use of Paper Resources	By end of FY2005, reduce office paper use by 42% from FY1993 level. ● 153 tons → 89 tons	92 tons FY2001 -1%	77 tons FY2001 -17%	○	12
Creation of Eco-Friendly Products	Increase the proportion of "SII Green Product" sales to at least 50% by the end of FY2004.	10%	10.9%	○	15,16

ENVIRONMENT-PROTECTION ACTION PLANS FOR FY2003 AND BEYOND

As a new initiative, we established a plan to completely phase out certain chemical substances from our products. Regarding the effective use of paper resources, moreover, we reached our initial target in FY2002, so in the future we will grapple with this issue as one of maintenance and management.

• Environmental Performance Indicators

Action Item	Medium-Term Target	Base Fiscal Year	Target Fiscal Year	FY2003 Target
		(Base Value)	(Target Value)	
Action Against Global Warming	Reduce CO ₂ emission by 3%.	1990 76,706 tons-CO ₂	2010 74,405 tons-CO ₂	FY2002 -1%
	Reduce greenhouse gas emissions (HFCs, PFCs, SF ₆) by 20%.	2001 9,937 tons-CO ₂	2010 7,950 tons-CO ₂	FY2002 -3%
Reduce Waste and Promote Recycling	Reduce total waste generation by 50%.	2000 4,322 tons	2010 2,161 tons	FY2002 -3%
	Achieve Group-wide Zero Emissions within Japan.	—	2003	—
Reduction/Control of Chemical Materials	Eliminate cadmium, hexavalent chromium, mercury, lead and polyvinyl chloride from products.	—	Dec. 2004 (New products) End of FY2005 (Current products)	—
	Reduce emissions of reportable (PRTR) chemical materials by 20%.	2001 20 tons	2010 16 tons	FY2002 -3%
	Eliminate lead solder	—	2003	—
Creation of Eco-Friendly Products	Increase SII green products sales share to at least 50%.	—	2004	20%
	Raise LCA* implementation rate to at least 70%.	—	2004	—

• Environmental Management Indicators

Action Item	Medium-Term Target
Environmental Management System	Establish, by end of FY2003, a promotion system that also includes overseas business units.
Environmental Education	Establish and implement education curriculum for business managers, by end of FY2003.
Environment-Related Communication	Issue increasingly comprehensive annual environmental reports.

*LCA (Life Cycle Assessment): Comprehensive evaluation of environmental impact through all stages in the life of a product, from procurement of inputs, through production, distribution, use, and disposal.

ENVIRONMENTAL ACCOUNTING

The SII Group began carrying out “environmental accounting” in FY1999. Environmental accounting provides a quantitative assessment and evaluation of the results, costs, and savings attributable to our environmental protection activities.

ENVIRONMENTAL ACCOUNTING RESULTS

As with previous years, the figures for FY2002 were calculated in accordance with guidelines issued by Japan’s Ministry of the Environment.

According to the results of calculation, the SII Group’s environmental-protection investments and expenses in FY2002 totaled, respectively, 89 million yen and 1.601 billion yen, roughly the same as in the previous year. (The figures for FY2001 were 109 million yen and 1.630 billion yen.) Among expenses, upstream and downstream costs increased from FY2001 in connection with the creation of eco-friendly products.

In FY2002, we were able to realize, over a broader range, savings from curtailing materials purchasing by recycling and reusing waste materials; these savings totaled 819 million yen. Savings by avoiding environmental risks were calculated at 357 million yen. Total savings through these efforts thus amounted to 1.166 billion yen.

• Costs of Environmental Protection

For SII Headquarters and all 12 manufacturing units, 4/1/2002 to 3/31/2003

(in millions of yen)

Costs of Environmental Protection				
Category		Content	Investment ¹	Expense ²
(1) Internal Costs (within each operational area)				
Breakdown	① Anti-Pollution	Water, atmosphere, noise, vibration	46.3	514.6
	② Global Protection	Measures related to global warming, ozone-layer depletion, etc.	6.2	230.4
	③ Resource Efficiency	Resource saving, reduction and recycling of waste, procurement management, etc.	37.1	376.7
(2) Upstream and Downstream Costs		Development of eco-friendly products, recycling of products and packaging, etc.	0.0	80.4
(3) Administrative Activities Costs		Environment training, information releases, running of Environment Management System, etc.	0.0	322.7
(4) Research & Development Costs		Lead-free soldering technology, etc.	0.0	75.7
(5) Social Activities Costs		Support for environmental protection groups, localities, etc.	0.0	1.5
(6) Reclamation Costs		Reclamation of contaminated soil, etc.	0.0	0.0
Totals			89.6	1,601.9

1. Investment amounts are for FY2002 only. In cases where we judge that total outlay covers purposes in addition to environmental protection, we have counted only the portion deemed to apply to environmental protection.

2. Expenses include depreciation for investments through FY2001. (Equipment investment and facility investment are depreciated over 5 and 10 years, respectively, in equal yearly increments.)

In cases where we judge that total outlay covers purposes in addition to environmental protection, we have counted only the portion deemed to apply to environmental protection.

• Environmental Protection Results, and Savings From Environmental Protection Activities

(in millions of yen)

Environmental Protection Results		Economies Achieved from Environmental Protection Activities			Total: 1,166.3
Environmental Impact	Quantity of Reduction (FY2001–FY2002)	Actual Savings	(subtotal) 819.4	Estimated Savings from Risk Reduction	(subtotal) 346.9
CO ₂	2,687 tons-CO ₂	Expense reduction attributable to energy conservation	308.0	Avoidance of stoppage due to air or water pollution, etc.	266.0
Water	6,000 m ³	Expense reduction attributable to resource conservation (water, paper)	27.6		
Paper Resources	16 tons		11.6		
Industrial Waste	247 tons	Reduction of waste processing expense	11.6	Avoidance of penalties for illegal dumping, etc.	80.9
General Waste	77 tons	Income from sale of salable materials	29.1		
Materials Purchasing Reduction	880.9 tons	Savings from reduction in purchasing of inputs, etc.	443.1		

ENVIRONMENT-RELATED TECHNOLOGIES

We are actively directing our technological expertise to the task of addressing environmental issues and needs.

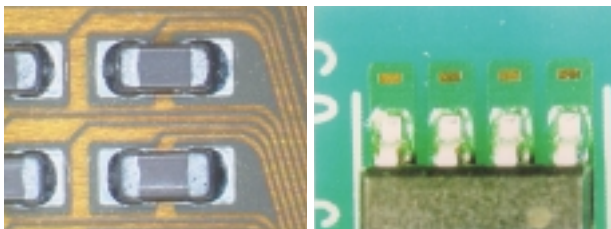
DEVELOPMENT OF A MINIATURE PRODUCTION SYSTEM

The SII Group has developed a test version of a miniature machining system suitable for production of small components such as used in watches and communications applications. This work was part of an R&D effort commissioned by NEDO.* The system consists of a grinding cell, washing cell, inspection cell (to check size and cylindricity), and loading and unloading unit. The grinding, washing, and inspection cells were each kept smaller than 200 mm in all dimensions, thereby achieving significant space and energy savings. Specifically, the system consumes only 1/5 the energy and 1/30 the space of a conventional compact grinder. The system's dimensions are: 1000 (W) x 600 (D) x 450 (H) mm. Miniaturization poses numerous problems, such as poor static rigidity and reduced processing capability. By incorporating new mechanisms and forming controls, however, we were able to counter these difficulties, and our new system is able to achieve machining accuracy and productivity that matches what is available from conventional setups. We are approaching the day when we will be able to use energy-saving, space-saving, environment-friendly systems such as this to manufacture real products.

LEAD-FREE SOLDER

We started our "Lead-Free Solder Promotion Project" in July 1999. We give high priority to utilizing lead-free electrical terminals within our electronics product, and we are committed to developing new technology to allow lead-free solder to be used for mounting of electronic components onto PC boards. Until now we have been promoting the standardization of operations, and we have also completed the development of mounting technology for use in mass production. In FY2002, with the abolition of lead planned for FY2003, we produced "Guidelines for Lead-Free Manual Soldering," further promoting standardization, and at the same time began the mass production of lead-free soldered mountings at overseas business units.

For product items whose manufacturing we subcontract, we have been providing technical guidance to the companies involved, thereby accelerating lead-free manufacture.



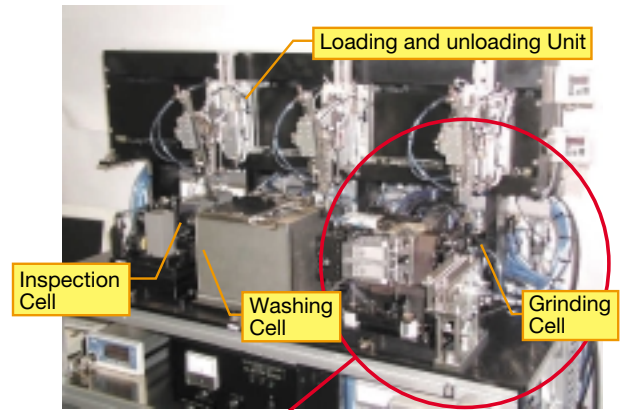
Lead-Free Solder Mount

Lead-Free Semiconductor Terminals

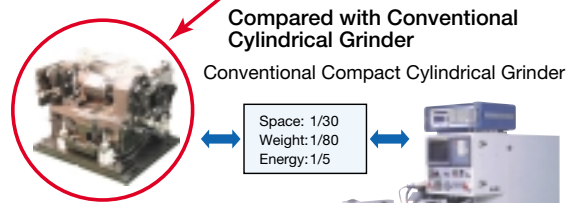
ANALYTICAL TECHNOLOGY

Our analytical technologies are used in a wide range of areas, from analyzing the elements in soil, waste water and environmental water to the fields of electricity/electronics and food products.

Miniature Grinding System



Base Dimensions: 1000 x 600 mm



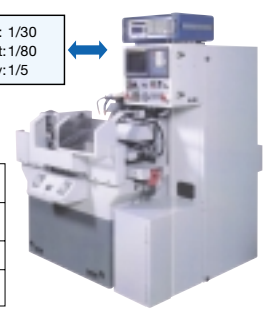
Compared with Conventional Cylindrical Grinder

Conventional Compact Cylindrical Grinder

Space: 1/30
Weight: 1/80
Energy: 1/5

Miniature Grinding Cell Comparison Chart

Item	Miniature Grinding Cell	Conventional Grinder
Space (main unit)	200X200 mm	1000X1200 mm
Weight	25 kgw	2000 kgw
Power consumption	2 kw	10 kw



In the EU (European Union), the RoHS directive (Restriction of the Use of Hazardous Substances in Electrical and Electronic Equipment) went into effect in February 2003. We possess analytical technologies that satisfy such international regulations. We now provide a variety of fluorescent X-ray analyzers that can quickly and nondestructively measure cadmium, lead and other harmful metals contained in products.

In addition, we started commissioned inspection services and have been offering seminars for customers and providing other services as well.



SEA2210A Fluorescent X-Ray Analyzer

*New Energy and Industrial Technology Development Organization

GREEN PURCHASING

If we wish to produce environment-friendly products, we must pay close attention to the eco-friendliness of the materials and components that we use as our inputs. From input materials to office supplies, the SII Group is fully committed to green purchasing.

GREEN PURCHASING OF PRODUCTION INPUTS

The SII Group is committed to using eco-friendly materials in the products that we manufacture. We published our SII Group Green Purchasing Standards in October 1999, and our purchasing departments actively pursue the concept of "green purchasing." Our standards cover not only the materials themselves but also the environment-management systems in place at our suppliers' facilities. Consequently, we ask potential suppliers to cooperate as we investigate their systems and materials and create a master list of items that qualify as green purchases. In FY2002 we targeted at 100% green purchasing of our production materials, but were only able to achieve 89%. We will aim at 100% green purchasing by the end of FY2003.

SII's Definition of "Green Items"

An input material or component qualifies as a "green input" if it meets all of the following criteria.

- It contains no banned substances or materials.
- Its manufacture does not involve use of banned substances or materials.
- The supplier's environmental-protection systems have been found to meet SII's green purchasing standards.

STRENGTHENING AND EXPANDING GREEN PURCHASING ACTIVITIES

Following an English version of the Green Purchasing Standards, in December 2002, in order to expand our green purchasing activities, we released a Chinese version. In May 2003, we prepared a more rigorous version of the Green Purchasing Standards that reflects the strengthening of chemical regulations that has occurred overseas in recent years.

GREEN PURCHASING OF OFFICE AND MRO SUPPLIES

The SII Group uses the *Benrinet* online procurement service to purchase office supplies and MRO (maintenance, repair, and operations) supplies. An Internet-based procurement system run by Net Kokuyo Ltd., *Benrinet* gives priority listing to eco-friendly products and clearly displays Ecomark labels, Green Mark labels, and other established indicators of eco-kindness. The site makes it easy to carry out green purchasing, and to learn more about eco-friendly products. We plan to expand the scope of these purchasing activities beyond office and MRO supplies.

BUYER EDUCATION

We provide "green purchasing" training to our buyers as a matter of course. Training is not limited to our purchasing departments; it is provided to managers and to our development, design and manufacturing departments. Through those efforts, we develop a better understanding and promote implementing green purchasing. In FY2002, 67 people received training.

$$\text{Green Purchasing Rate for Production Inputs} = \frac{\text{"Green Items" on Master Purchasing List}}{\text{All Items on Master Purchasing List}}$$



Green Purchasing Standards



Benrinet Website

INITIATIVES RELATED TO GLOBAL WARMING

The SII Group recognizes that global warming is currently the most important environmental issue that we face. We address this issue by following a broad energy-reduction approach that covers our worksites, our machinery, and our daily living. We are committed to reducing the energy content of products, and to carrying out various Group-wide activities to fight global warming.

ENERGY-SAVING ACTIVITIES

FY2000 marked the end of the previous phase of our energy-saving initiatives. In FY2001 we established and began tackling new medium-term targets. In FY2002 we succeeded in reducing CO₂ emissions 3.4% (2,687 tons) from the previous year by, among other things, improving our facilities management, strengthening control over air-conditioning temperatures, and improving our manufacturing processes.

REDUCTION OF GREENHOUSE EMISSIONS

In June 2002 we issued an "SII Greenhouse-Gas Reduction Scenario," an initiative that aims at bringing the entire Group into the battle against global warming in line with the terms set forth in the Kyoto Protocol. This scenario establishes targets for reducing CO₂, HFC, PFC and SF₆ emissions. In FY2002 we further strengthened the energy-saving improvements that we have been implementing over the years in our manufacturing processes for semiconductors and other products. Our various business units will strengthen their ties and coordinate their operations, thereby promoting these emission-reducing and energy-saving efforts.

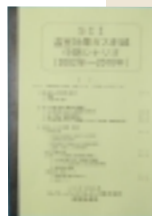
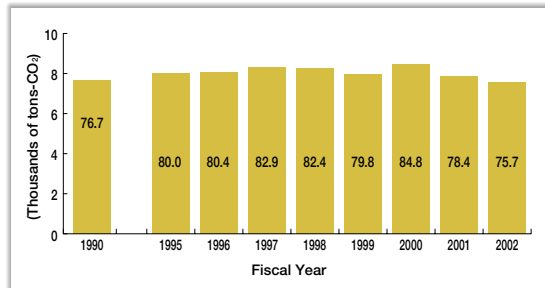
ENERGY-SAVING EQUIPMENT

We always consider environmental impact when upgrading existing equipment and installing new equipment. When installing a new freezer, for example, we consider factors such as the machine's energy efficiency, its impact with respect to ozone depletion and global warming, its heat discharge method, and the method used by the makeup unit to humidify incoming air. Introduction of a high-efficiency freezing machine at our Takatsuka unit (Chiba) led to energy savings that have reduced CO₂ emissions by 620 tons to date. Installation of inverter controls on air-conditioning cold-water pumps has also helped to improve our energy efficiency.

DAY-TO-DAY ENERGY SAVINGS

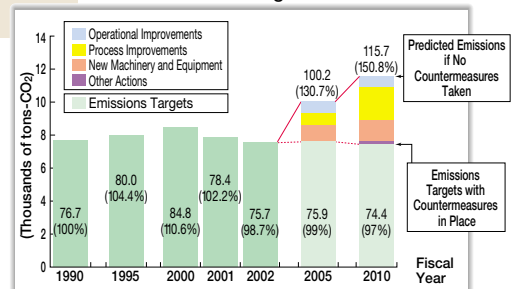
Common awareness is an essential component of meaningful energy savings. At SII, all employees participate in simple energy-saving practices: switching off idle office machines, turning off unnecessary lights in their work areas, and so on. We also run periodic "energy patrols" to assess how well we are doing on this front. Our so-called "Idling Stop" campaign—aimed at reminding people to reduce car idling—started in FY1997 and continues to this day.

• CO₂ Emissions



SII Greenhouse-Gas Reduction Scenario

• CO₂ Emission Reduction Targets and Policies



Freezing machine



"Idling Stop" Banner (on right)

ECO-AWARE DISTRIBUTION, AND EFFICIENT USE OF RESOURCES

The SII Group is aggressively working to reduce air pollutants and CO₂ emissions generated by our shipping and distribution operations. We are also working to reduce our usage of disposable packing materials, and to utilize resources more efficiently.

ECO-FRIENDLY DISTRIBUTION

SII Logistics Inc. handles the Group's inventory management, packaging, and shipping operations. Rather than using separate transport runs for individual departments, SII Logistics has been working to set up more efficient transports that jointly meet the needs of multiple departments.

Specifically, Logistics is engaged in an ongoing joint project with SII business units aimed at building an optimal Group-wide transport network. It is closely monitoring and revising loads, routes, and schedules so as to improve efficiency and to reduce and rationalize inventories throughout the Group. As a result of these efforts, CO₂ emissions from transport operations in FY2002 were down 9.7% (a drop of 5.8 tons-CO₂). We continue to expand our usage of reusable container-type boxes in place of conventional, disposable cardboard boxes.

We are also aware that whenever we move one of our business units we generate a large quantity of surplus office fixtures and furniture. Rather than throwing these goods away, we use a bulletin board on our intranet to auction them off within the company—thereby encouraging their reuse and discouraging unnecessary purchases.



Cardboard Boxes

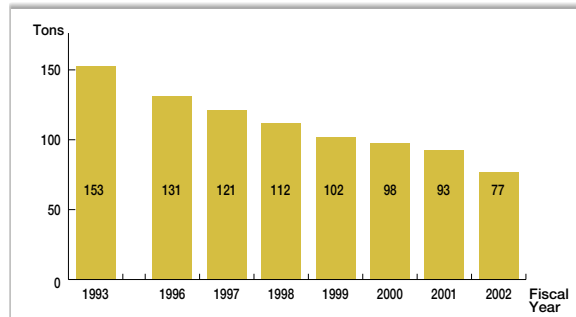


Container-Type Boxes

EFFICIENT USE OF OFFICE PAPER

Efficient use of office paper has been a major environmental issue for us since 1993. We reduce paper consumption by promoting duplex copying, by encouraging employees to use blank sides of used sheets, and by migrating to electronic documentation and document distribution. In FY2002 we reduced paper consumption by 16 tons (17%) from the previous year, and succeeded in reaching our target for the end of FY2005 well in advance. We will work to maintain and improve this accomplishment.

• Consumption of Office Paper (copy-machine paper, printer paper, etc.)



EFFICIENT USE OF WATER

Manufacturing processes consume large quantities of water. To reduce our water consumption, we recover waste water from these processes and filter it for reuse. In FY2002, the reverse-osmosis filtering system in place at our Miyakubo unit (Chiba) recovered and purified 10,246 m³ of water, all of which was fed back into the manufacturing process. Thanks to similar efforts throughout the Group, overall water consumption in FY2002 was down 6,000 m³ from the preceding year.



Waste-Water Filtering Device

CONTROL OF CHEMICAL SUBSTANCES

Safe and correct handling of chemical substances is essential not only for environmental reasons but also as a risk-management issue. The SII Group manages chemicals carefully at all stages: purchase, use, storage, and disposal.

SUBSTANCE MANAGEMENT

The SII Group has issued the SII Chemical Management Guides. They are used as a text in the training that we regularly conduct as part of our efforts to improve the management of chemical substances in all areas of our operations.

In FY2002 we reviewed our system for classifying chemical substances and recategorized them into five groups: substances whose use is prohibited in manufacturing processes; substances whose use in manufacturing processes should be avoided; substances whose containing in products is prohibited; substances to be avoided; and, as a new group, substances to be entirely phased out. The latter group consists of five substances, including cadmium and hexavalent chromium. Efforts are under way to entirely phase out these substances at an early stage.



SII Chemical Management Guides

ON-SITE MANAGEMENT AND EDUCATION

To facilitate effective management, we prominently post information at each location where chemical substances are used and stored. At usage sites we post MSDSs (material safety data sheets) that describe the substance characteristics and present relevant usage precautions. At storage locations we post information about the materials and quantities being held. We also carry out periodic training, including instruction about how to respond to emergencies.



Substance Storage and Information Display



PCBs in Storage

• Results of PRTR Assessments for FY2002

The following table shows results of chemical-substance quantity investigations carried out in accordance with the PRTR (Pollutant Release and Transfer Register) Law.* In FY2002 we handled 67 tons of chemicals covered under this law.

(Unit: tons)

Substance	Amount Handled	Emitted				Transported		Recycled	Consumed	Eliminated
		① Discharged to air	② Discharged to public water	③ Discharged to earth at business unit	④ Landfill-processed at business unit	⑤ Waste water transported to sewerage system	⑥ Waste matter transported out of business unit	⑦ Reusable material transported out of business unit	⑧ Transported as product, etc.	⑨ By decomposition, chemical reaction, etc.
2-aminoethanol	9.13	1.82	0.00	0.00	0.00	0.00	6.85	0.00	0.00	0.46
Antimony and its compounds	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.18	0.00
Ethyl benzene	0.30	0.08	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00
Xylene	15.55	1.29	0.00	0.00	0.00	0.00	14.26	0.00	0.00	0.00
Cobalt and its compounds	11.40	0.00	0.00	0.00	0.00	0.00	0.00	4.32	7.08	0.00
2-ethoxyethyl acetate	0.70	0.43	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00
Inorganic cyano compounds (excluding complex salts and cyanates)	0.76	0.01	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.37
1,2-dichloroethane	0.13	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00
Dichloropentafluoropropane (HCFC-225)	0.89	0.79	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00
N,N-dimethylformamide	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mercury and its compounds	0.25	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.24	0.00
1,3,5-trimethyl benzene	0.32	0.01	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.01
Toluene	1.45	1.23	0.00	0.00	0.00	0.00	0.22	0.00	0.00	0.00
Lead and its compounds	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.17	0.00
Nickel compounds	2.93	0.00	0.10	0.00	0.00	0.00	0.25	1.67	0.91	0.00
Phenol	0.60	0.09	0.00	0.00	0.00	0.00	0.48	0.00	0.00	0.03
Hydrogen fluoride and its water-soluble salts	16.84	0.58	0.02	0.00	0.00	0.00	7.53	0.00	0.00	8.71
Boron and its compounds	0.37	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.14
Poly (oxyethylene) = octylphenyl ether	0.02	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00
Poly (oxyethylene) = nonylphenyl ether	0.27	0.00	0.00	0.00	0.00	0.00	0.13	0.07	0.00	0.07
Manganese and its compounds	3.92	0.00	0.00	0.00	0.00	0.00	0.49	0.00	3.30	0.13
Total	67.13	6.53	0.35	0.00	0.00	0.00	31.64	6.81	11.88	9.92

*Japanese law intended to help assess emission levels of specified substances, and to promote improvements in management of these substances.

WASTE REDUCTION ACTIVITIES

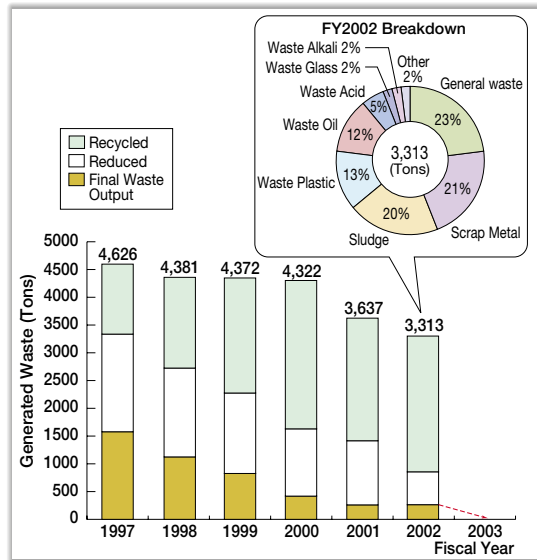
The SII Group is aggressively working to reduce waste generation as we move toward our goal of Zero Emissions.

CONTROL OF TOTAL WASTE GENERATION, AND ZERO EMISSIONS

In FY2001 we established new targets for reducing the total amount of waste produced, and began working to achieve them. The total amount produced in FY2002 was 3,313 tons, down 9% from FY2001.

The "Zero Emissions target at our main domestic business units" - the end of FY2003 - is fast approaching. Unfortunately, the amount of waste dumped into landfills increased 7% from the previous year, to 264 tons. However, progress was made on other fronts; for example, SII Quartz Techno (in Tochigi Prefecture) was added to our list of business units that have achieved Zero Emissions.

Trend in Total Waste Generation (including salable materials)



ON-SITE WASTE REDUCTION

Our Ohno unit (Chiba) achieved Zero Emissions in FY2000. The Ohno unit uses special chip processor to separate out and recover cutting oil from the chip debris generated during automated machine processing. As a result, reused oil now accounts for about 40% of all the oil utilized at the Ohno unit. These devices have proven very effective in enhancing resource efficiency and reducing waste.



Chip Processor

REDUCTION AND RECYCLING OF COMMON WASTE

Careful handling of common non-industrial waste is also important. We ask our employees to sort their garbage into numerous categories: magazine paper, newsprint, "confidential" paper, cardboard, glass bottles, PET bottles, cans, combustible, batteries, non-combustibles, and so on.

And as an early believer in paper recycling, in 1993 we introduced a special recycling truck to collect used paper from our business units in the Keiyo area (waterfront industrial area in Chiba) and carry it to a paper manufacturer for reuse. Confidential documents are also faithfully delivered up for recycling, after passing through industrial-size shredders.

We also run special machines for reducing and composting the wastes from our cafeteria. The resulting material can be used as fertilizer, and is made available to our employees for use in their



Garbage Sorting



"Clean Arrow" Paper Recycling Pickup Truck

“GREEN” PRODUCTS

As a major manufacturing company, we recognize our responsibility to create eco-friendly products using eco-friendly processes. We are aggressively addressing this issue through various initiatives, including SII “Eco-Labeling” and Life Cycle Assessment trials.

THE SII “GREEN PRODUCTS” LABEL

To raise general awareness of our Group’s eco-friendly products, we introduced our “SII Green Product Label” in December 2001. This is a Type II environmental label as defined under ISO 14021, meaning that it represents a self-declared environmental claim. To determine whether a product qualifies for this label, we evaluate it using our own “green product standards.” Specifically, we assign a score of 1 to 5 for each of 18 evaluation parameters. Products that receive an average score of 3.5 or above are classified as “Green products” and carry the Green Products label.



Green-Product Evaluation System

We use the 18 environmental compatibility factors on Table 1 to evaluate all of our products. Each SII product is rated in terms of its environmental compatibility based on the five-point assessment scale on Table 2 for each factor. We place priority on the absolute assessment standards, which are set up in accordance with SII’s own surveys about the environmental compatibility of other companies’ similar products. Factors that are difficult to evaluate with the absolute assessment standards are rated on the relative assessment standards, which indicate the improvement in environmental compatibility in comparison with SII’s previous products. To ensure that our evaluations remain meaningful and objective, we review and revise our assessment standards once every two years.

ADVANTAGES OF OUR GREEN PRODUCT STANDARDS

Our “green product standards” encourage our entire Group to focus on eco-friendly production. Our “front-runner” category, in particular, encourages us to set our sights high. And the inclusive approach we use to set up these standards helps to promote Group-wide awareness: members from all business units are expected to make a direct contribution by reviewing features of other SII green products and by looking carefully at products created by other manufacturers.

Worldwide awareness of environmental issues is continually developing, and new technologies and approaches are introduced daily. By carefully monitoring worldwide progress, we continue to learn and grow and we become ever more capable of creating top quality eco-friendly products.

Table 1 Environmental Compatibility Factors for SII Green Product Standards

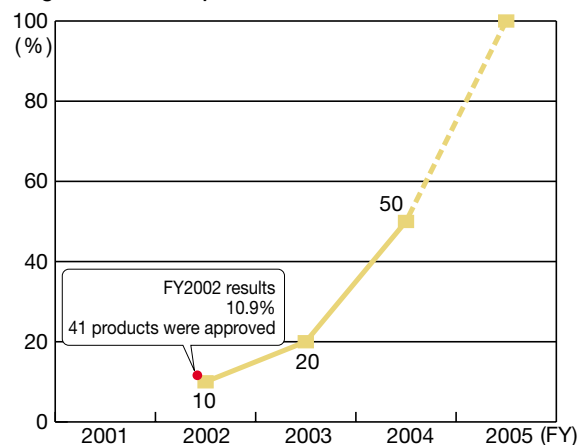
No.	Parameter
1	Power consumption during use
2	Power consumption during standby
3	Weight of product
4	Use of reused parts and recycled materials
5	Ability of used product to be recycled
6	Extended product life
7	Reduction of harmful ingredients that should be reduced or avoided*
8	Avoidance of forbidden harmful ingredients*
9	Smaller or lighter packaging
10	Reduction of foam packaging materials
11	Avoidance of polyvinyl chloride and heavy metals in packaging
12	Reduced energy consumption during manufacturing process
13	Reduced resource consumption during manufacturing process
14	Reduction of harmful substances that should be reduced or avoided* during manufacturing process
15	Avoidance of forbidden harmful substances* during manufacturing process
16	Easy disassembly
17	Easy sorting of materials
18	Information disclosure in instruction manuals, etc.

*Based on SII Group standards

Table 2 Concepts for Assessment Scale Ratings

No. of points	Absolute assessment standards	Relative assessment standards
5	Lead runner	Outstandingly better than previous products
4	In the leading pack	Much better than previous products
3	In the second pack	Better than previous products
2	Average	Same as previous products
1	Inferior	Worse than previous products

Targets for SII Group’s Green Product Share



SII GREEN PRODUCTS

The SII Group is aiming to reach 50% green-product share (half of our product list to be filled by "green products") by 2004. To find the latest information about our products, please visit our website.



Data Communication Card Thermal Printer

Remote Access Server

EXAMPLE PRODUCT: THE SR-T6500 ELECTRONIC DICTIONARY

This is a highly-advanced, high-end, ultra-slim model with a large-sized top case (only 15 mm) and a user-friendly full keyboard. The SR-T6500 is the first model featuring COBUILD English Dictionary.

Eco-Friendly Features

- Employment of an aluminum case made it possible not only to achieve the lightest weight in the same product class (surveyed SII in 2002) but also to contribute to saving resources and recycling.
- Neither foam materials, vinyl chloride nor heavy metals are used in package.
- Integrating parts into a unit allows for easy assembly and disassembly, saving energy in the production lines and easy sorting at the time of disposal.
- Designation of materials of plastic parts exceeding 5 g increases the sorting ratio of used products and makes a substantial contribution to saving energy and protecting the global environment.



SR-T6500 Electronic Dictionary

COMPATIBILITY WITH JAPAN'S "GREEN PURCHASE PROMOTION" LAW

Seiko Infotech Inc. (SIIT), one of our Group companies, is engaged in design, manufacture, and marketing of printers and plotters. The company produces products that comply with Japan's "Green Purchase Promotion Law" and with the International Energy Star Program. It also maintains a recovery center which collects and recycles used ink cartridges, used waste-toner bottles, and other such consumables.



Multifunction Plotter



Ink-jet Printer



LCA TRIALS

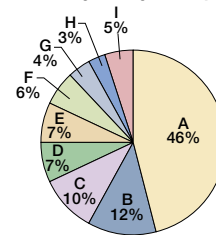
SII has run life-cycle assessment trials on the moving parts in our watches, and in March 2002 we drew up LCA guidelines based on the results and on the experience we gained.

These SII LCA Guidelines will serve as the basis for full-scale expansion of our LCA activities.

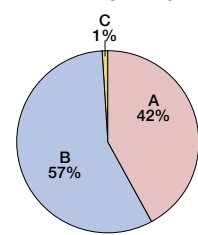


SII's LCA Guidelines

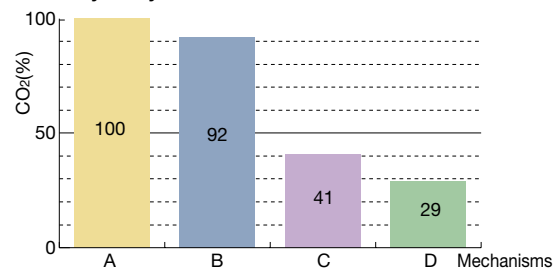
CO₂ Analysis by Component



CO₂ Analysis by Stage



CO₂ Analysis by Movement Mechanism



RECYCLING OF PLASTICS

We regenerate plastic material created in our forming processes so as to re-create high-quality plastics, and we then use these plastics in precision components for our watches. This is just one more of the many ways that we are working to recycle our resources.

ENVIRONMENT PROTECTION AT PRODUCTION PLANTS

While various laws and statutes place limits on permissible emissions, we at the SII Group have set our own more stringent limits for the emissions we generate. We are aggressively managing our air and water emissions, and proactively working to reduce the environmental impact of our operations.

SOx AND NOx

To reduce our NOx output, we operate our boilers efficiently and we aggressively manage our exhaust. NOx emission in FY2002 was 9.1 tons. To reduce SOx output, we are moving away from use of heavy oil and migrating to gas and kerosene.

In our Takatsuka unit (Chiba), we have eliminated the need for boiler-driven steam humidification by using a vapor humidifier in our makeup air unit in combination with warm water heated by the heat output from our freezing machine. By doing away with the boiler, we have reduced annual heavy-oil use by 83,464 liters (a 96% drop from the preceding year), which in turn has driven down our SOx emissions.



Boiler

DRAINAGE PROCESSING

Our own drainage standards are much more stringent than those set by national regulations. We periodically analyze and measure our drainage and always maintain safe and stable levels.

Our business units in the Keiyo area of Chiba are faced with the additional problem of the ongoing eutrophication (nutrient pollution) of Tokyo Bay, and must consequently make special efforts to reduce drainage of nitrogen and phosphorous. We continue to make period investments to deal with this problem on a timely basis.



Drainage Processing Equipment



SOUND POLLUTION

We are well aware that it would be unacceptable to burden our neighbors with sound pollution from our manufacturing units. Consequently we have erected noise barriers and taken other steps to reduce sound pollution as best we can.



Noise Barrier

ENVIRONMENTAL MEASUREMENTS BY BUSINESS UNIT

Water quality and air quality measurements for FY2002 are shown below.
All regulated items were within their limits.

• Water-Quality Measurements

Units: mg / liter; pH; parts per cubic meter

ND: Not detected

Dash ("—") indicates that item is not regulated or was not measured.

	Regulated Substance	Business Unit								
		Takatsuka (Matsudo City, Chiba)	Ohno (Ichikawa City, Chiba)	Miyakubo (Ichikawa City, Chiba)	Narashino (Narashino City, Chiba)	Oyama (Sunto County, Shizuoka)	SII QuartzTechno Ltd. (Tochigi City, Tochigi)	SII Micro Parts Ltd. (Sendai City, Miyagi)	Morioka Seiko Instruments Inc. (Iwate County, Iwate)	SII Microtechno Inc. (Omagari City, Akita)
Life-Environment Values	1 pH	6.6–8.0	6.7–7.9	7.2–8.0	6.6–7.6	6.0–7.6	6.8–7.4	6.6–7.0	7.4–7.8	6.3–7.1
	2 BOD	7.8	8.7	13	8.6	6.8	5	110	6.2	17
	3 COD	—	—	—	14	26	—	—	10.3	—
	4 Suspended solids	6	2	11	4	4	31	4.3	4.8	17
	5 n-Hex	ND	ND	ND	1.4	—	ND	20	0.8	1
	6 Phenols	ND	ND	—	ND	—	ND	ND	ND	—
	7 Copper	0.02	0.02	0.09	ND	—	ND	0.5	0.02	—
	8 Zinc	0.26	0.08	0.12	0.05	—	ND	0.2	0.07	—
	9 Iron	0.32	0.03	0.25	0.03	—	0.4	1.1	0.09	—
	10 Manganese	0.02	ND	0.03	0.03	—	ND	0.5	ND	—
	11 Total chromium	ND	ND	ND	ND	—	ND	<0.02	ND	—
	12 Number of coliform group	15	ND	ND	18	ND	ND	—	ND	150
Toxic Substances	1 Cadmium	ND	ND	ND	ND	—	—	ND	ND	ND
	2 Cyanogen	ND	0.2	ND	ND	—	ND	ND	ND	ND
	3 Organic phosphorus	ND	ND	ND	ND	—	—	<0.1	ND	<0.1
	4 Lead	ND	ND	ND	ND	—	ND	ND	ND	ND
	5 Hexavalent chromium	ND	ND	ND	ND	—	—	<0.02	ND	<0.05
	6 Arsenic	ND	ND	ND	ND	—	—	ND	ND	<0.01
	7-1 Total mercury	ND	ND	ND	ND	—	—	ND	ND	ND
	7-2 Alkyl mercury	ND	ND	—	ND	—	—	ND	ND	ND
	8 PCB	ND	—	ND	ND	—	—	ND	ND	ND
	9 Trichloroethylene	ND	ND	ND	ND	—	—	ND	ND	ND
	10 Tetrachloroethylene	ND	ND	ND	ND	—	—	<0.002	ND	ND
	11 Dichloromethane (methylene chloride)	ND	ND	ND	—	—	—	<0.002	ND	<0.02
	12 Carbon tetrachloride	ND	ND	ND	—	—	—	<0.002	ND	<0.002
	13 1,2-dichloroethane	ND	ND	ND	—	—	—	<0.002	ND	<0.004
	14 1,1-dichloroethylene	ND	ND	ND	—	—	—	ND	ND	<0.02
	15 cis-1,2-dichloroethylene	ND	ND	ND	—	—	—	ND	ND	<0.04
	16 1,1,1-trichloroethane	ND	ND	ND	ND	—	—	ND	ND	ND
	17 1,1,2-trichloroethane	ND	ND	ND	—	—	—	<0.002	ND	<0.006
	18 1,3-dichloropropane	ND	ND	ND	—	—	—	<0.002	ND	<0.002
	19 Thiuram	ND	ND	ND	—	—	—	<0.006	ND	<0.006
	20 Simazine	ND	ND	ND	—	—	—	<0.003	ND	<0.003
	21 Thiobencarb	ND	ND	ND	—	—	—	<0.02	ND	<0.02
	22 Benzene	ND	ND	ND	—	—	—	<0.002	ND	<0.01
23 Selenium	ND	ND	ND	ND	—	—	ND	ND	<0.01	

• Air-Quality Measurements

ND: Not detected

Dash ("—") indicates that item is not regulated or was not measured.

Regulated Substance	Business Unit							
	Takatsuka (Matsudo City, Chiba)	Ohno (Ichikawa City, Chiba)	Narashino (Narashino City, Chiba)	Oyama (Sunto County, Shizuoka)	SII Micro Parts Ltd. (Sendai City, Miyagi)	Morioka Seiko Instruments Inc. (Iwate County, Iwate)	SII Microtechno Inc. (Omagari City, Akita)	
Particulate matter (g/m ³ N)	ND	ND	ND	0.001	<0.005	0.01	0.01	
SOx (m ³ N/h)	0.038	ND	0.0575	0.045	<0.012	0.044	0.003	
NOx (ppm)	58.3	34.2	19.1	58.2	35	64	88	

ENVIRONMENTAL AUDITING AND RISK MANAGEMENT

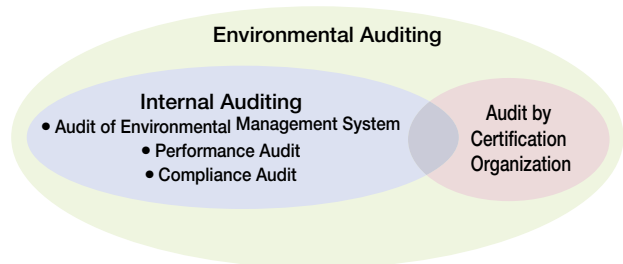
Auditing and Risk Management are crucial components of an effective environmental management system.

AUDITING SYSTEM

All of our business units carry out internal environmental audits to check on the progress of our environment protection activities. These audits are an essential part of our efforts to strengthen our environmental management system and improve our performance.

Internal auditors must of course be trained so that they can carry out meaningful and reliable audits. Consequently we hold periodic auditor training, and we certify qualified individuals as internal auditors in accordance with our Auditor Certification System. These certified SII auditors and official CEAR* examiners both participate in our audits, offering valuable advice and helping to promote a consistent level of environmental actions throughout the Group.

We also receive periodic inspections from outside certification authorities, whose objective evaluations help to ensure that we are always moving in the right direction.



SII Environmental Audit

Qualification		Number of Qualified Employees
SII Certified Environmental Auditors		47
Trainees who completed Environmental Auditor Education		392
Official Environmental Auditors (CEAR* Registered Auditors)	Lead Auditors	5
	Auditors	2
	Provisional Auditors	14

As of April 2003

RISK MANAGEMENT

We recognize the importance of taking a proactive stance to prevent contamination of air, water, and soil around our business units. The standards that we set for ourselves are stricter than the legal requirements, and we conduct periodic auditing and measurements to make sure that we are within our limits. We also come up with various emergency scenarios, and we implement appropriate measures to reduce the risk of accident and to contain any damage in the event that an accident does occur.

We are aware, for example, that equipment may not always function as expected. And so we install barriers around our chemical tanks so as to contain any accidental spillage. We also install emergency cutoff devices in our rainwater drains, for the same reason. And we act promptly to replace or renew aging equipment.

At each of our business units, we think about ways that accidents might occur and we work out appropriate countermeasures and communication procedures. We carry out periodic emergency drills to ensure that these procedures are effective and that our people will know how to act to prevent the spread of contamination in the event of an accident.



Emergency Training



Leakage Containment Barrier

*CEAR: Center of Environmental Auditors Registration

COMMUNICATION

We are actively working to promote two-way communication about our environmental activities with all of our stakeholders.

SPREADING THE WORD

We began publishing our annual Environmental Report in 1996, as a way of periodically informing our stakeholders about our environmental activities and results. In 1999 we opened our environment website, allowing us to reach a worldwide audience. In June 2002, we upgraded the website so that it always provides pertinent, up-to-the-minute information. Newsworthy events—such as ISO 14001 certifications and release of eco-friendly products—are publicized not only through these channels but also through newspapers, magazines, and other mass-media outlets. We are conscientiously working to gain widespread understanding of our environmental initiatives and activities.



QUESTIONNAIRES AND INQUIRIES

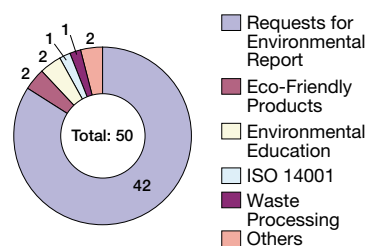
Communication is a two-way street, and at the back of this Environmental Report you will find a questionnaire form that you can use to send us your opinions, suggestions, and questions. We endeavored to enrich the content of this report by reflecting questionnaire data.

You can also talk to us by going to our website—where you can fill out the questionnaire online, request copies of reports and pamphlets, and enter your comments and questions. In FY2002 we received 50 online comments and requests through this site. We shall continue working to maintain and improve two-way communication with all of our stakeholders.

Number of Contacts

Questionnaires Returned	10
Number of Internet Queries	
Requests for Environmental Report	42
Environmental Education	2
Eco-Friendly Products	2
Waste Processing	1
ISO 14001	1
Others	2
Total	50

Number of Internet Queries



COMMUNICATION WITH NEIGHBORS AND EMPLOYEES

We believe that communication with local residents is of vital importance, and we actively encourage field trips from neighboring schools. We are pleased that many of the students who have visited us have reported that their visits helped them “gain a good understanding of SII’s environmental activities.”

We also want to promote meaningful communication with our employees. The Eco-Town bulletin board on the SII intranet includes an area where employees can submit their questions, opinions, and suggestions. We are always interested in incorporating the “voice of our employees” into our environmental initiatives, and the Eco-Town site helps us to achieve this.



Business Unit Trip

SOCIAL AND COMMUNITY ACTIVITIES RELATED TO THE ENVIRONMENT

The SII Group is always thinking of how best to be of service to and within our environment.

PARTICIPATION IN “THINK THE EARTH”

Think the Earth is a nonprofit project whose theme is the “coexistence of ecology and economy.” *Think the Earth* provides a mechanism for businesses to contribute to society, and it promotes new concepts of production with the aim of inspiring people to think about the Earth. The project receives a portion of the revenues generated by sales of related products and services, and uses these funds to support its own operations and to contribute to NGOs and to other nonprofits.

We fully support the project’s goals, and we actively participate in it. We are pleased to have developed the project’s kickoff product: the “wn-1 Earth Watch,” a dome-shaped watch with a three-dimensional model of the northern hemisphere as its face. We have also produced a southern-hemisphere version, the “ws-1.”



wn-1

The “Earth Watch” sports a 24-hour dial and an impressive 3D model of the northern hemisphere (model wn-1) or the southern hemisphere (ws-1). The product plays on the double meaning of the word watch. It is hoped that the *watch* will inspire the wearer to think more, and more often, about the Earth.

The wn-1 Earth Watch

Visit the Think the Earth website at: www.thinktheearth.net

CULTIVATION OF AMBARY HEMP

Our Oyama unit in Shizuoka cultivates a large garden of ambary hemp, an annual plant known for its high CO₂ absorption. In FY2002 the garden produced a harvest of 200 kg (441 lb), with maximum plant height reaching 3.85 m (12.6 ft). The harvest is donated to local welfare homes, where residents use the stalks to product picture frames, the sheaths to produce fancy writing paper, and the color to produce dyed shawls. The garden is fertilized with compost produced by processing of the business unit’s cafeteria waste.



Ambary Hemp

COMMUNITY ACTIVITIES

We actively support community-based environmental activities. We carry out periodic cleanups of the areas around our business units, and we participate in a wide variety of community-sponsored events.

Our Makuhari head office is an active participant in the annual EcoMesse Chiba fair* in Makuhari New City. We contribute exhibition space for the fair, we develop questions for environment-related quizzes, and we participate in many of the fair’s various eco-events.



Neighborhood Cleanup

*Started in 1996 and sponsored in part by Chiba Prefecture, the fair brings together citizens, businesses, and government administrators for the purpose of working toward solutions of environmental problems.

TIMELINE OF ENVIRONMENTAL ACTIVITIES AND ACCOMPLISHMENTS

Major Activities and

- Dec. 1988 Establish "Fluorocarbon Countermeasures Promotion Committee"
- Aug. 1992 Abolish usage of CFCs
- Dec. 1992 Establish Environmental Administration Office (now called the Environmental Administration Dept.)
- Apr. 1993 Establish Environmental Protection Plan, "SII Green Plan"
- Aug. 1993 Introduce the "Clean Arrow" used-paper collection truck
- Nov. 1993 Abolish usage of trichloroethane
- Apr. 1994 Begin monthly management of energy, paper use, and waste
- Aug. 1995 Executive council kicks off on Environmental Management System (based on ISO 14001)
- Aug. 1996 Revise "SII Green plan" (and start publication of annual Environment Report)
- Oct. 1996 Chiba Keiyo 6 business unit receive award for paper recycling activities
- Nov. 1996 Takatsuka unit (Chiba) becomes first SII Group business unit to receive ISO 14001 certification
- Dec. 1997 Begin our "Idling Stop" campaign
- Feb. 1998 Publish our "SII Chemical Management Guides"
- June 1998 SII Microtechno Inc. (formerly Akita Precision Ltd.) receives Akita prefecture's "Best Environmental Activities" award
- June 1998 Morioka Seiko Instruments Inc. receives Iwate prefecture's award for "Excellence in Environmental Protection"
- Mar. 1999 We complete acquisition of ISO 14001 certification for all of our 11 major business units in Japan
- Mar. 1999 Abolish use of chlorine solvents (trichloroethylene, methylene chloride)
- Oct. 1999 Issue "SII Group Green Purchasing Standards"
- Feb. 2000 Begin environmental accounting
- Nov. 2000 Ohno unit achieves Zero Emissions
- Apr. 2001 Start LCA trials
- Oct. 2001 Makuhari head office (Chiba) earns ISO 14001 certification
- Dec. 2001 Introduce SII "Green Products" labeling system
- Mar. 2002 Release first product bearing "Green Products" label

Major Events In FY2002

- June 2002 Prepared the "SII Green Gas Reduction Scenario"
- Sep. 2002 Western Japan Business Unit earns the business unit's first ISO14001 certification
- Oct. 2002 Instruments Technology (Johor) Sdn. Bhd earns ISO14001 certification
- Dec. 2002 SII Quartz Techno, Inc. (Tochigi City, Tochigi Prefecture) achieves Zero Emissions
- Mar. 2003 41 products are approved as an "SII Green Product"

Environmental Awards

- Oct. 1996 Chiba Keiyo 6 business units receive Recycling Promotion Committee's Chairman's Award for paper recycling activities
- June 1998 SII Microtechno Inc. (formerly Akita Precision Ltd.) receives Akita prefecture's "Best Environmental Activities" award
- June 1998 Morioka Seiko Instruments Inc. receives Iwate prefecture's award for "Excellence in Environmental Protection"
- May 2000 Makuhari head office receives the Chairman's Award from the Chiba City Building Conference



Headquarter Building (Makuhari)

This modern building incorporates leading-edge information technology and was designed to promote high productivity while providing an ideal working environment. It is also, of course, environmentally friendly. The building has received considerable recognition, receiving Nihon Keizai Shimbun's "modern office excellence" award in 1993, and the Chairman's Award from the Chiba City Building Conference in 2000.



Activity Symbol

SII 
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