EMR2006

Environmental Management Report

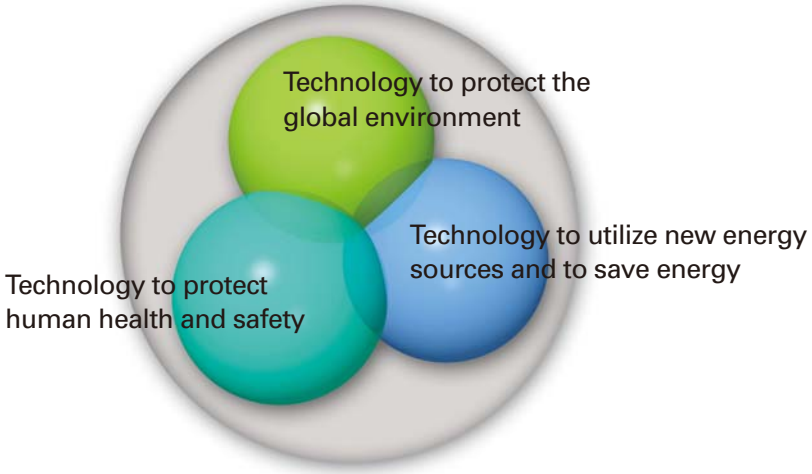
SANYO DENKI

Basic Philosophy

We believe that the value of a corporation is to make everyone happy. Not only for our customers and users, but also for the global environment, human society, partners and affiliates, investors and financial institutions, rivals and competitors, and even for ourselves, we would like to be a good being. Since the establishment in 1927, we have tried to look ahead of the times, we have developed technologies that had not existed before, and have strove to develop technology that uncovers potential needs. The goal of our corporation is to bring about happiness to all walks of life through technology.

Technologies

Sanyo Denki is committed to the development of new technology and products based on the principle of three core technologies.



C O N T E N T S

The scope for this report
Organizations included: Headquarters Office; Technology Center; domestic factories (Midorigaoka Works, Shioda Works, Tsuiji Works, Aoki Works, and Fujiyama Works)
Period: April 1, 2005 to March 31, 2006

Message from the Executive Officer

Nobumasa Kodama
Executive Officer and
Major Operating Officer

To realize our corporate philosophy, Sanyo Denki has expressed our view on environmental conservation as follows: "In regard to the society and environment, we are committed to management in which we can contribute to the conservation of the global environment and human prosperity through our corporate activities." We have been implementing various activities according to this view. Based on the idea of pursuing the corporate philosophy, we have renamed our environmental report the "Environmental Management Report," which describes our intent better.

The requirements of corporate management today include the awareness of importance of environmental conservation, and activities to ensure environmental conservation. The Sanyo Denki Group is expanding its production base to several countries, and its sales base to all over the world. Considering the raw materials and parts composing our products, we can see that the business and sales activities of Sanyo Denki Group are supported by global resources, businesses and people all over the world. As a corporate group that coexists with the earth, Sanyo Denki believes that it is extremely important to positively incorporate activities for global environmental conservation into the company's management.

Based on our corporate activities, we are actively involved in environmental conservation measures including control of valuable resources and energy such as waste, paper, and electricity, promoting conservation, and reduction of toxic chemicals. In addition, we develop new technology and products according to each of three technical concepts principles, contributing to the conservation of the global environment.

- Technology for protecting the global environment
- Technology for protecting human health and safety
- Technology for utilizing new energy sources and saving energy

In actual product development processes, specifically, issues such as reduced power requirements, high conversion efficiency, elimination of toxic substances, improved performance, miniaturization, and multi functionality are pursued.

A newly developed product that meets certain environmental evaluation standards is certified as an " ECO-PRODUCTS," an environmentally sound product, and many ECO-PRODUCTS are commercialized every year. The development and sales of ECO-PRODUCTS are very much important parts in ours environmental conservation activities.

In addition to the everyday activities and business activities including procurement, designing, and production carried out by Sanyo Denki, customers can be engaged in environmental activities by choosing our products. Our aim is that such activities will eventually be connected to activities for preventing increases in global environmental impact in direct or indirect ways.

This environmental management report is to provide a better understanding of the activities in each division of our company. We are committed to enhancing the quality of environmental management by actively incorporating and improving environmental activities into our management. Your opinions and advice are very welcome.

Environmental Policy and the System

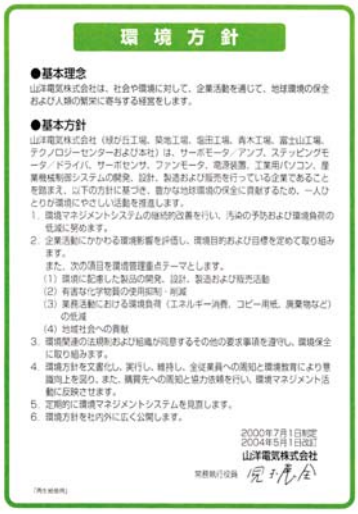
Environmental Policy

Basic Philosophy

In regards to society and the environment, we are committed to management in which we can contribute to global environment conservation and human prosperity through our corporate activities.

Basic Policy

The businesses of Sanyo Denki Co., Ltd. (i.e., Midorigaoka Works, Tsuiji Works, Shioda Works, Aoki Works, Fujiyama Works, Technology Center, and Head Office) are focused on development, design, manufacturing and sales of servo motors/amplifiers, stepping motors/drivers, servo sensors, fan motors, power supplies, industrial personal computers, and industrial machine control systems. According to the principles listed below, every member of the company is engaged in environmentally friendly activities in order to contribute to the conservation of the rich global environment.



環 境 方 針

●基本理念

山洋電気株式会社は、社会や環境に対して、企業活動を通じて、地球環境の保全および人類の繁栄に寄与する経営をします。

●基本方針

山洋電気株式会社（経ヶ丘工場、築地工場、塩田工場、青木工場、富士山工場、テクノロジーセンターおよび本社）は、サーボモータ／アンプ、ステッピングモータ／ドライバ、サーボセンサ、ファンモータ、電源装置、工業用パソコン、産業機械制御システムの開発、設計、製造および販売を行っている企業であることを踏まえ、以下の方針に基づき、豊かな地球環境の保全に貢献するため、一人ひとりが環境にやさしい活動を推進します。

1. 環境マネジメントシステムの継続的改善を行い、汚染の予防および環境負荷の低減に努めます。
2. 企業活動にかかわる環境影響を評価し、環境目的および目標を定めて取り組みます。
   また、次の項目を環境管理重点テーマとします。
   (1) 環境に配慮した製品の開発、設計、製造および販売活動
   (2) 有害な化学物質の使用抑制・削減
   (3) 業務活動における環境負荷（エネルギー消費、コピー用紙、廃棄物など）の低減
   (4) 地域社会への貢献
3. 環境関連の法規制および組織が同意するその他の要求事項を遵守し、環境保全に取り組みます。
4. 環境方針を文書化し、実行し、維持し、全従業員への周知と環境教育により意識向上を図り、また、購買先への周知と協力依頼を行い、環境マネジメント活動に反映させます。
5. 定期的に環境マネジメントシステムを見直します。
6. 環境方針を社内外に広く公開します。

2000年7月1日制定
2004年5月1日改訂

山洋電気株式会社

Environmental policy brochure

Environmental Committee

Systems

Six years have passed since the company's Environmental Committee was launched in April 2000. From the last fiscal year, we started maintaining the status quo in some activities such as saving energy and waste reduction at the factories. In addition to the reduction of environmental impact, our activities focus on the environmental management priorities, the reduction of toxic chemical substances and development of ECO-PRODUCTS.

Internal Audit System

In FY2005, our company conducted an internal audit for the entire company and each of the works (i.e., Head Office, Technology Center, all the factories) concerning ISO14001. The internal audit was conducted in accordance with the FY2004 version of ISO14001.

Contents of Audit

- The work progress of the environmental programs and their effects
- The work progress of the "environmental management priorities"
- The targets setup and work progress
- The implementation of improvement measures and maintaining the effects
- The implementation of training on ISO14001 for FY2004 version
- From "conformity" audit to "effectiveness" audit
- The progress on achieving positive environmental aspects and their effects

Main Tasks of the Environmental Committee

Formulation, notification and instruction of policies for environmental conservation activities

Preparation and maintenance of the company's rules including the company's environmental manual concerning environmental conservation activities

Promoting the environmental conservation activities at Head Office, factories and business offices through the persons in charge of environmental management

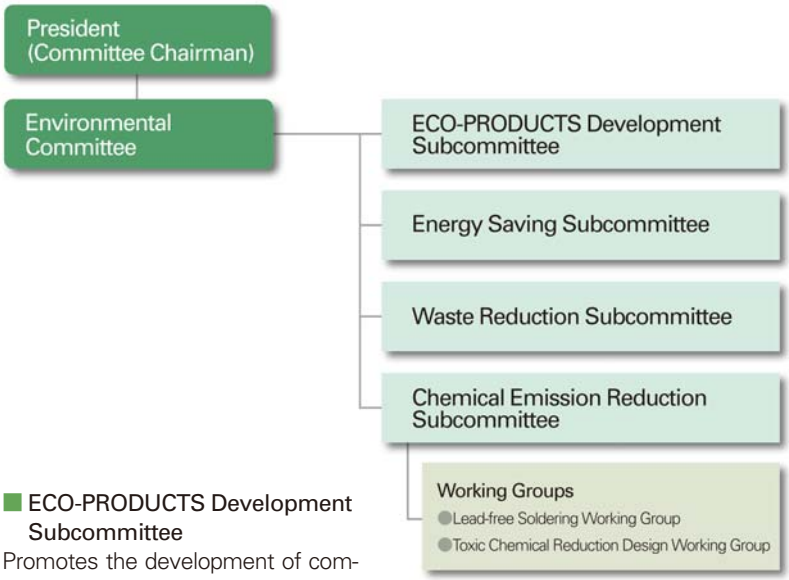
Serving as a liaison with the outside with regard to the environmental conservation activities for the entire company

Conducting research on the environmental activities in the society

Organization Charts for Environmental Management

Scheme of Environmental Management System (EMS)

Organization Chart of Environmental Committee



ECO-PRODUCTS Development Subcommittee

Promotes the development of competitive, environmentally sound products in accordance with the ECO-PRODUCTS Standards.

Energy Saving Subcommittee

Accomplishes energy saving through the Environmental Management System (EMS) activities on an everyday basis. Also, establishes long-term objectives for energy saving, and offers cost-effective investment plans.

Waste Reduction Subcommittee

Aims at zero-emission through the reduction of waste and lowering of the disposal cost

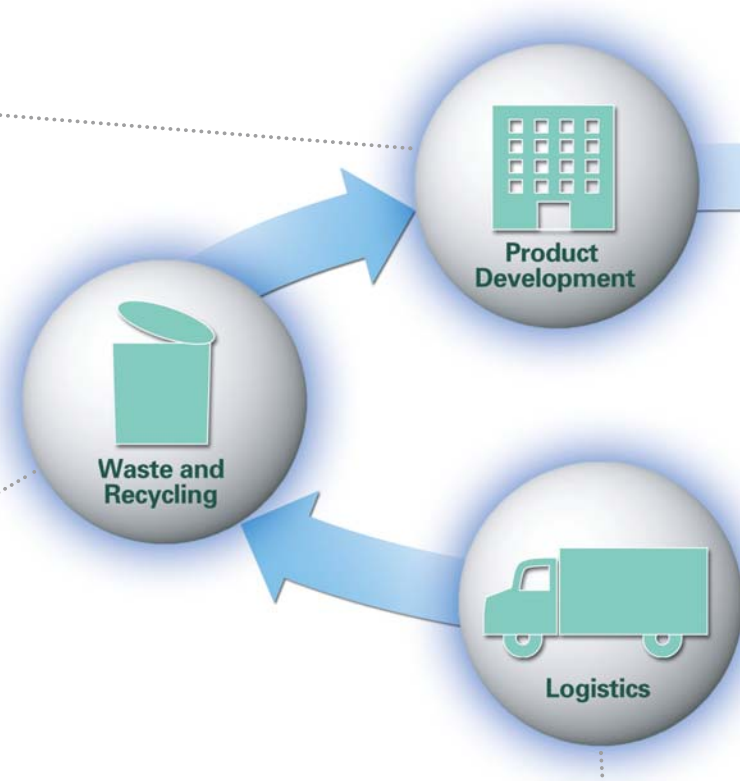
Chemical Emission Reduction Subcommittee

Aims at improvement in environmental pollution conditions through the volunteer emission control of toxic chemicals. Also, promotes using lead-free solder and lead-free wire, reduction of toxic chemicals, and compliance with Pollutant Release and Transfer Register (PRTR).

The Organization Chart for Environmental Management System

Note: The Environmental Accounting Subcommittee, which operated from April 2002 to November 2004, was dissolved in November 2004 in accordance with the newly implemented Environmental Accounting System. The environmental accounting is continuously presented in the Environmental Management Report.

Environmental Effects and Our Actions



Product Development ···P10-12

Activities undertaken this term

- Advanced the implementation of Life Cycle Assessment (LCA) in the product development process
- LCA was implemented for 9 out of 14 ECO-PRODUCTS

Activities to be tackled next term

- Development of ECO-PRODUCTS with LCA

Waste and Recycle ···P15

Activities undertaken this term

- Carried out inspection at the waste treatment plant in view of zero-emission (Level 2)

We found problems in terms of disposal cost; further study is necessary

	Actual (Target)
Head Office	84.0% (80.0% or more)
Technology Center	97.4% (98.0% or more)
Midorigaoka Works	98.0% (98.0% or more)
Shioda Works	98.6% (98.0% or more)
Tsuiji Works	97.2% (98.0% or more)
Aoki Works	99.3% (98.0% or more)
Fujiyama Works	99.2% (98.0% or more)

Activities to be tackled next term

- Achieving zero-emission Level-2

The examination of the disposal process by industrial waste disposal traders revealed that some portion of the waste that was put into the recycling process is actually land-filled as a residual. To reduce the "recycle residual," measures such as switching over to the disposal traders who use high quality treatment technology are taken, achieving zero-emission Level-2.

Logistics ···P14

Activities undertaken this term

- Replaced the corrugated shipping cases with returnable cases (began with Midorigaoka Works and Aoki Works)

The used cases are reused as shipping cases in the affiliate plants.

- Review of unnecessary, excessive wrapping and the type of wrapping materials (began with Fujiyama Works)

The PP band core drums, which were made of disposable corrugated board, were switched over to the reusable plastic type.

Activities to be tackled next term

- Considering the reduction of Tri-wall pak
- Advancing the replacement of the corrugated shipping cases with returnable cases

The Chronology of Environmental Events

1997 1998 1999 2000 2001

1993
May ● Banning of CFCs completes

1994
August ● Environmental Committee (Phase I) is established

1997
April ● Implementation of ISO14001 at Aoki Works
July ● Photovoltaic power generation system and co-generation system are introduced at Technology Center

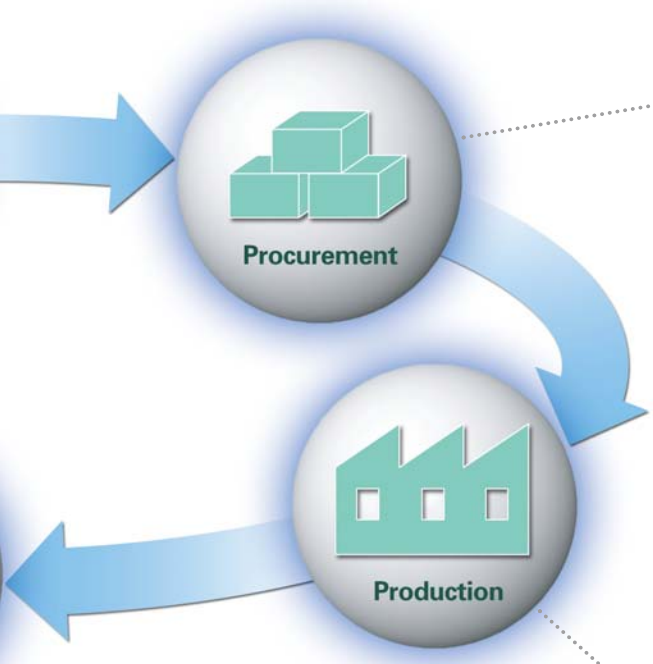
1999
April ● Aoki Works acquires ISO14001 accreditation
June ● Enhanced efficiency of the photovoltaic power generation system is achieved at Technology Center
November ● Technology Center acquires ISO14001 accreditation

December ● Fujiyama Works acquires ISO14001 accreditation

2000
April ● Environmental Committee (Phase II) is established
● Participates in the Zero-emission Promotion Committee for Nagano

Techno Foundation, Asama Techno-polis Regional Center

2001
March ● Ueda Business Operation comprising six factories acquires ISO14001 accreditation as multi-site.



Procurement ··· P13

Activities undertaken this term

- Application of Chemical Management Guideline and the follow-up for the business contacts
- Use of lead-free solder
- Promoting lead-free in the Servo-system Division and Power-system Division
- Replacing high melting temperature solder, which is currently exempt from the provisions of RoHS Directive, in Cooling System Division
- Promoting the use of RoHS-compliant parts step-by-step, and implementing impurity control
- Promoting compliance of toxic chemicals, etc. with Japan Green Procurement Survey Standardization Initiative (JGPSSI)

Activities to be tackled next term

- Promoting the use of lead-free solder
- Promoting the use of RoHS-compliant parts and part identification
- Advancing the reduction of toxic chemicals

Production ··· P14

Activities undertaken this term

- Review of the energy saving effect by the renewal of air-compressor at Aoki Works and its implementation
- Review of introducing an Energy Service Company (ESCO) business at Fujiyama Works in progress
- Review of the implementation of the provisions of the Amended Energy Conservation Law in the factories in progress

Activities to be tackled next term

- Review of the installation of the power meter and oil meter in the factories designated for energy management and its implementation
- Proposal of the energy saving plan
- Establishment of an energy saving symbol

Environmental impact category

- global warming
- destruction of ozone layers
- air pollution
- noise and vibration
- waste
- soil contamination
- water pollution
- resource exhaustion

2002

2002
March ● Accomplishes zero-emission at the four factories (90% or more)
● Head Office acquires ISO14001 accreditation
November ● Re-defines zero-emission as recycle rate 98% or more, and accomplishes it at the four factories

2003

Establishes Green Procurement Guidelines
2003
April ● Introduction of the Environmental Accounting
October ● Sanyo Denki Philippines acquires ISO14001 accreditation

2004

2004
December ● Shipping of RoHS-compliant cooling fans and stepping motors starts

2005

2005
August ● The Guidelines for Chemical Management are established, and implemented
2006
March ● The update of ISO14001: 2004 completes

FY2005 Activity Report

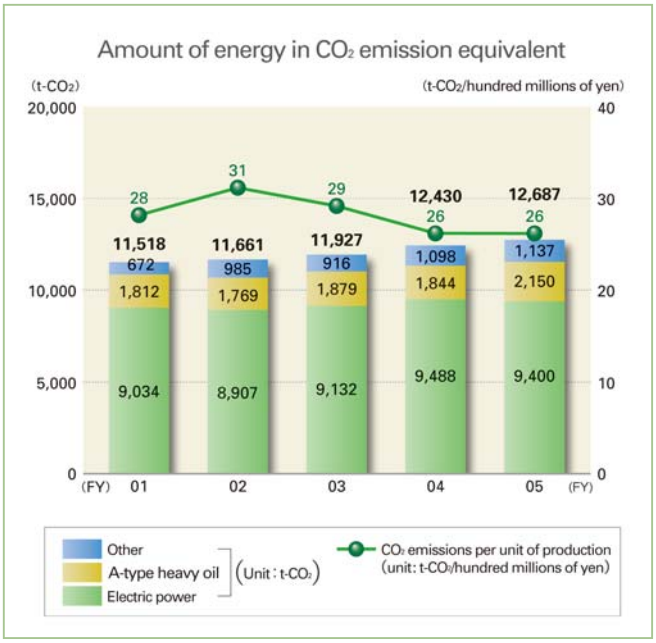
We developed 14 new models of ECO-PRODUCTS this term. The ECO-PRODUCTS account for 17.7% of the total sales. We accomplished zero-emission with the company total at 99.6%.

Activity	FY2005 Goals and targets		Activities undertaken and outcomes in FY2005	
Promotion of ECO-PRODUCTS	Creation of ECO-PRODUCTS		14 models of products were certified as ECO-PRODUCTS	
Sales	ECO-PRODUCTS sales: 17.5% or more the total sales		The actual sales of ECO-PRODUCTS: 17.7% the total sales	
Reduction of toxic chemicals	Use of lead-free solder mounting Development of products that have lower content of toxic chemicals to meet the requirement for the "RoHS-6" compliance Reduction of PRTR substances		Switching over to lead-free solder mounting in process All the models of cooling fans are "RoHS-6" compliant The preparation work of RoHS-6 compliance for the rest of the models is now underway, due for completion in June 2006	
Reduction in electric power consumption	Midorigaoka Works	(8%)	(10%)	
	Tsuiji Works	26%	24%	
	Shioda Works	8%	15%	
	Aoki Works	28%	35%	
	Fujiyama Works	31%	31%	
	Technology Center	18%	16%	
	Head Office	21%	26%	
Reduction in fuel consumption	A-type heavy oil: 708 kL * Total of Midorigaoka, Tsuiji, Shioda, and Fujiyama Works	13%	2%	A-type heavy oil: 793 kL
	LPG: 101,000 m^3N * Total of Aoki Works and Technology Center	38%	40%	LPG: 98,000 m^3N
Reduction in photocopy paper consumption	Midorigaoka Works	27%	30%	
	Tsuiji Works	42%	43%	
	Shioda Works	20%	27%	
	Aoki Works	56%	57%	
	Fujiyama Works	22%	15%	
	Technology Center	20%	24%	
	Head Office	34%	42%	
Reduction of waste※1	Midorigaoka Works	(39%)	(39%)	
	Tsuiji Works	77%	77%	
	Shioda Works	(16%)	(11%)	
	Aoki Works	0%	14%	
	Fujiyama Works	31%	46%	
	Technology Center	(18%)	13%	
	Head Office	49%	54%	
Contribution to the local community	Cleaning the surrounding areas of Head Office, Technology Center, and Works once a month or more		Achieved the goal	
Promotion of zero-emission	Achieving the recycling rate for the company total: 98% or more		Company total: 99.6%	

Note 1. The reduction rate is calculated based on the levels in FY2000, except for the copy paper data, which are based on FY1999.
Note 2. The figures in parentheses indicate increase compared with the base level.
* The numbers are managed in absolute values with breakdown to each of the factories.

Global Warming Prevention

We view the CO_2 emission control by pursuing energy saving as the highest priority in combating global warming, and we are actively pushing forward an energy saving campaign through the improvement of energy-use efficiency and clean emission. Compared with the previous year, FY2005 experienced increase in A-type heavy oil use due principally to the unusual cold waves in the winter. Accordingly, the CO_2 emission increased. However, the amount of CO_2 emissions per unit of production remained the same. We introduced compressor unit control panels and inverters to achieve reduction in power use.



■Specific energy saving activities

The effects of the compressor renewal on energy saving at Aoki Works were reviewed, and the renewal was carried out

More exhaust fans were installed in the negative pressure room of Fujiyama Works to reduce the temperature increase in the summer

Saving energy by the replacement of mercury lamps at Fujiyama Works

The outcome of the activities

●The electric power use at Aoki Works: decreased to 716,638 kWh/year from 864,130 kWh/year

Amount reduced: 147,492 kWh/year

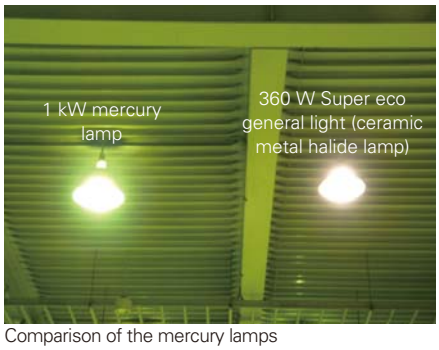
●The temperature in the pressure room at Fujiyama Works: decreased to 46-C from 51-C, 5-C decrease

●The 1 kW mercury lamps at Fujiyama Works were replaced with 360 W high-efficiency lamps.

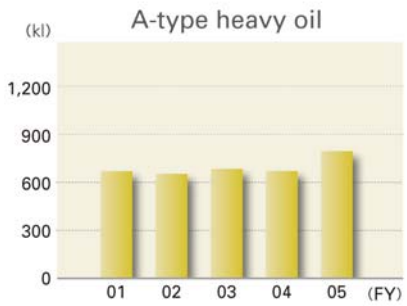
The amount of power reduced by the replacement at Fujiyama Works: 11,104 kW/year (1,388 kW/unit·year × 8 units). Replacement of other lamps is scheduled.

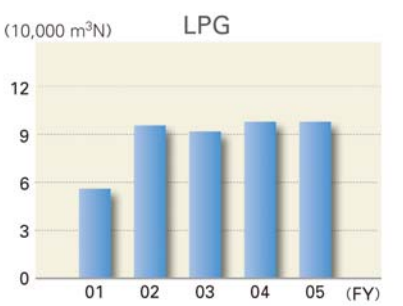
Compressor at Aoki Works

Installed exhaust fan in the negative pressure room



Comparison of the mercury lamps





Note: Aoki Works data are included since FY2002

Environmental Accounting

The aim of the Environmental Accounting is to efficiently and effectively facilitate activities for environmental conservation, while maintaining good relations with society. Based on the "Environmental Accounting Guidelines 2002" published by the Ministry of the Environment, we have measured costs for environmental conservation in business activities and the effects gained as a result of the activities as quantitatively (i.e., in currency and amount of product) as possible. Analyzing the environmental cost and effect on the basis of quantified data will help improve the efficiency of environmental management and the quality of the activities.

FY2005 Actual Results

■Environmental conservation costs: The environmental conservation costs for FY2005 totaled 820 million yen with investment being 117 million and expenses 703 million. The R & D cost accounts for 92.6% of the total investment cost. Meanwhile the R & D cost accounts for 57.8%, and management activity cost accounts for 28.6% of the total expenses.

■Environmental conservation effect: With regard to the effect on the resources for business activities, there was a decrease of electric power use by 210,000 kWh.

■Economic effect: With regard to economic effect, the gain was 46 million yen whereas the cost reduction was minus 21 million yen. The figure includes only actual effects, excluding any presumed effects.

■Environmental Conservation Costs

(Unit: 1,000 yen)

Category		Typical activities	Investment	Expense
(1) Business area costs	❶Pollution prevention costs	Air pollution prevention (measurement of smoke and soot) Water pollution prevention (inspection of wastewater treatment tanks, and sampling of sludge, effluent, etc.)	0	29,912
	❷Global environment conservation costs	Routine electrical inspection	8,706	16,728
	❸Resource recycling costs	Waste reduction, recycling, proper waste disposal	0	45,860
	Total from (❶~❸)		8,706	92,500
(2) Upstream/downstream costs		Green procurement of office supplies, commission fee for refurbishing and reconditioning of products	0	732
(3) Administration costs		Development and operation of EMS, environmental training for employees	0	201,134
(4) R & D costs		Development of ECO-PRODUCTS (testing equipment, metal molds, etc.)	108,197	406,404
(5) Social activity costs		Annual membership fee for the Japan Environmental Management Association for Industry	0	2,123
(6) Environmental remediation costs			0	0
		Grand total	116,903	702,893

Note: Expenses include equipment depreciation costs and personnel expenses.

■Environmental Conservation Effects

Classification	Environmental conservation effect indicators		
	Indicators of environmental impact	Indicators	Actual indicator value
Effects concerning resources introduced into the business activities	Energy input	Decrease in energy use	CO_2 emission equivalent: −257 tons−CO_2
			Electric power consumption: 210,000 kWh
			A-type heavy oil consumption: −113 kL
			LPG consumption: 9.4 tons
			Kerosene consumption: −10.5 kL
			Light oil consumption: −13.9 kL
			Public gas supply consumption: −1,600 m^3N
		Increase in renewable energy consumption with respect to the total energy consumption	Photovoltaic power generation: −0.008% (whole company)
	Input volume of water	Decrease in water use	Water consumption: −4,100 m^3
	Input volume of other resources	Decrease in input of other resources	Consumption of photocopy paper: 88,000 sheets
Effects concerning environmental impact and waste that are released by the business activities	Output volume of waste, etc.	Reduction of total output such as waste	The total output of waste: 369.7 tons
		Increase in recycle usage with respect to the total output of waste	Recycle + valuables: 0.006%
		Reduction of output of toxic waste	Output of toxic waste: 13.9 tons

■Economic benefits of environmental conservation activities (actual effects)

(Unit: 1,000 yen)

Description of benefits		Amount
Profits	Proceeds from sales of valuables	46,012
Reduction of expenses	Reduction of expenses by saving energy	−20,640
	Reduction of waste disposal processing cost due to recycling	338
	Reduction in expenses to purchase photocopy paper, etc.	−978

Note 1. Conform to the "Environmental Accounting Guidelines FY2002" published by the Ministry of the Environment.
2. Figures with "−" indicate results without significant benefit compared with the FY2004 data.

Methods of data collection

Accounting term: April 2005 to March 2006
Scope: Sanyo Denki Co., Ltd. (non-consolidated)
Method of expense calculation: Environmental conservation cost = environmental conservation investment + environmental conservation expenses
Environmental conservation investment = investment on environmental conservation equipment × environmental conservation factor
Environmental conservation expenses = depreciation + personnel costs + other expenses
Environmental conservation effects: Calculation is based on the difference of the total amount of current term with respect to that of the base term, which is from April 2004 to March 2005
Economic benefits of environmental conservation activities: The total amounts were added up in the calculation of proceeds from sale of valuables.
The reduction of expenses is the aggregation of the difference of cost, from which non-environmental conservation cost has been deducted, between current term and the base term.
Presumed effect is not calculated.

ECO-PRODUCTS

Environmentally Sound Products: "ECO-PRODUCTS"

Environmentally sound product designing

The aim of environmentally sound product designing is to reduce the harmful environmental impacts in all the phases of the life cycle of a product (i.e., procurement of parts and materials, production, distribution, use, recycling, disposal, etc.), and considerable care is taken to reduce environmental impacts in development of our products. Things to be considered include conservation of resources, material selection, efficiency of materials and energy, reusability, ease in maintenance, and design that takes disassembly and recyclability into consideration.

Products with reduced environmental impact are certified as environmentally sound products, or "ECO-PRODUCTS." "ECO-PRODUCTS" can be identified by the "leaf symbol" in catalogs, etc.

ECO PRODUCTS

Life Cycle Assessment (LCA)

We evaluate the environmental soundness of a product with LCA. LCA is a method to comprehensively evaluate the degree of global environmental impact such as global warming by quantifying the parameters.

The types of information to be entered into an LCA and types of information to be obtained as a result of assessment are as follows:

1. Information to be entered into LCA

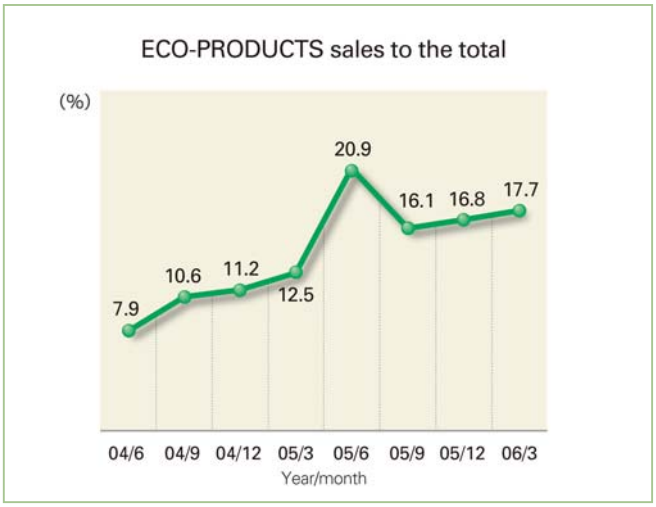
- Power consumption, standby power
- Weight
- Assumed useful life of the product
- Load carrying capacity in transportation
- Data on parts used (number of parts, material, processing method, weight, withdrawable or not)

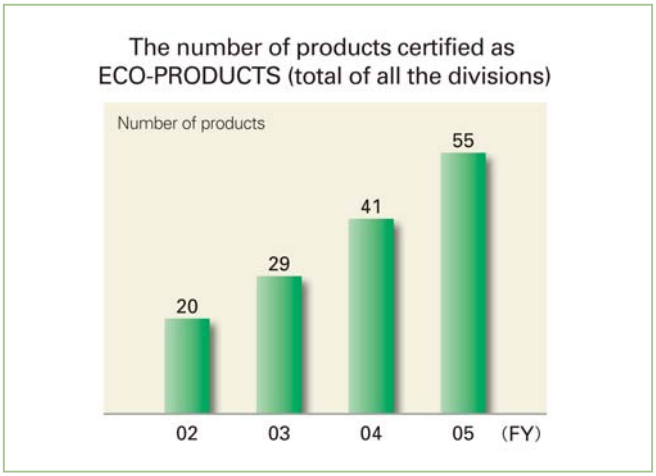
2. Information to be obtained

- Volume of energy consumption
- Volume of CO_2 emission

* LCA tool database

"Eco-assist," a support system for acquisition and maintenance of environmental ISO accreditation offered by Hitachi, Ltd. is used.





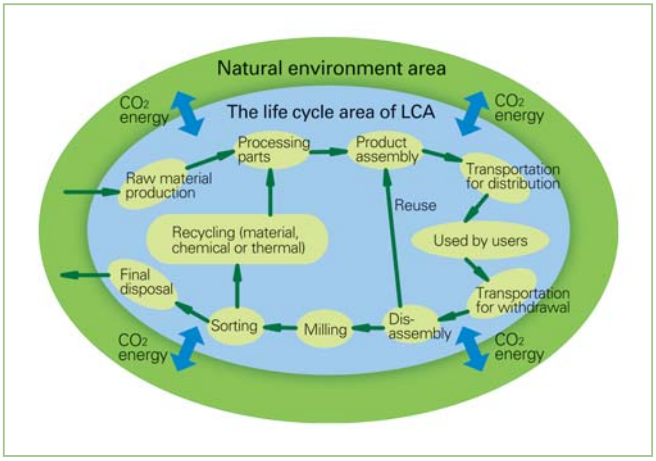


Diagram of the life cycle area for LCA
The degree of impact on the natural environment (i.e., global warming) at each phase of the life cycle is evaluated by the volume of energy consumption and CO_2 emission.

Typical New ECO-PRODUCTS of FY2005

LCA Results

The results of LCAs are presented for three typical systems out of the 14 ECO-PRODUCTS completed in FY2005. The results show the comparison of CO_2 emission at the time of operation within the life cycle between the newly developed model and an older model of our company. Since these products are used for an extended period of time by users, reduction of CO_2 emissions at the time of operation is the most effective approach in prevention of global warming. The amount of CO_2 emissions per year (i.e., LCA results divided by assumed useful life) is shown.

Cooling Fan
San Ace 40 CRA type
40mm square, 56mm thickness
Dual counter rotating fan

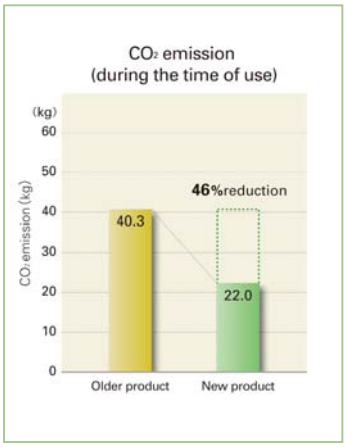
Features

- The maximum air flow is increased by 28% compared with our older model. It has the maximum air flow for this size in the industry.
- The electric power consumption for a given air flow is reduced by 40% compared with our older model. RoHS compliant.

Model Nos. for LCA comparison

- Developed model: 9CRA0412J501
- Older model: 9CR0412S501

The amount of CO_2 emission at the time of operation is calculated based only on power consumption of cooling fans assuming that the fan will operate for the assumed useful life at the rated rotating speed.



Uninterruptible Power Supply (UPS)
SANUPS
E11A (1 kVA)

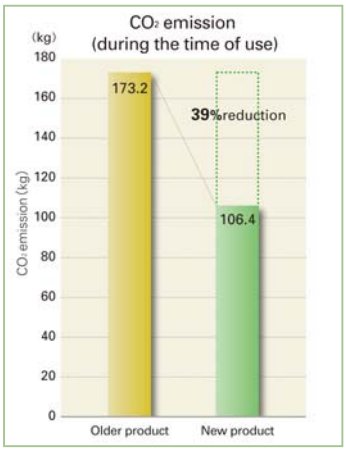
Features

- A hybrid UPS which automatically selects the optimum operation method according to the user's power supply quality.
- The device efficiency of 95% is possible under stable power supply quality.

Model Nos. for LCA comparison

- Developed model: E11A102A001
- Older model: ASE10S1A001

The amount of CO_2 emission at the time of operation is calculated based only on power consumption of UPS assuming that the UPS will feed power to the loading device for 24 hours a day 365 days a year for the assumed useful life.



Two-phases Stepping Motor
SANMOTION F
42mm square, 0.9°/step

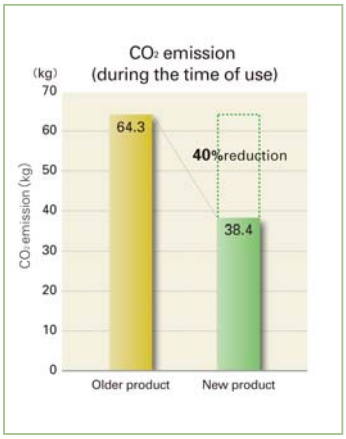
Features

- A stepping motor with the holding torque 1.52 times that of our older model, 42 mm square, and basic step 0.9°
- Compatible with PM driver of our company. RoHS compliant.

Model Nos. for LCA comparison

- Developed model: Stepping motor: SH1422-0411
- Older model: Stepping motor: 103-594-0240

The amount of CO_2 emission at the time of operation is calculated based only on power consumption of motor assuming that both of the motors will operate at the same output power for 8 hours a day 240 days a year for the assumed useful life.



Products developed in FY2005

Cooling Fan San Ace 120 SG-type
120mm square, 38mm thickness fan

Features

●The electric power consumption is reduced by 12% for a given air flow rate compared with our older model.

●It has the maximum air flow rate for this size in the industry. RoHS compliant.

Cooling Fan San Ace 40 GV-type
40mm square, 28mm thickness fan

Features

●The electric power consumption for a given air flow rate is reduced by 15% compared with our older model.

●It has the maximum air flow rate for this size in the industry. RoHS compliant.

Cooling Fan San Ace 150 GV-type
150mm square, 50mm thickness fan

Features

●A high performance fan of new size.

●With 150 mm square and 50 mm thickness, it provides the air flow rate comparable to the older model with 172 diameter and 51 mm thickness. ●A resin frame reduced weight by 40%. RoHS compliant.

Cooling Fan San Ace 172 GV-type
ϕ172mm, 51mm thickness fan

Features

●A fan with high static pressure. The maximum static pressure is increased by 66% compared with our older model. ●The electric power consumption at given static pressure is reduced by 27% compared with our older model. RoHS compliant.

Uninterruptible Power Supplies (UPS)
SANUPS A23C304 (300 kVA)

Features

●We have added a 300 kVA model to the A23C series. The electric power conversion efficiency, 91%, is the highest in the industry. ●The outer dimensions are reduced by 40%, the weight by 32% compared to our older model.

* The photograph is SANUPS A23C (100 V).

AC Servo Amplifier
SANMOTION R

Features

●Electric power loss is reduced by 20% compared with our older model (SANMOTION Q). ●A new feature enabled the choice of the optimum tuning according to the device compared to our older model, SAMMOTION Q.

DC Servo Amplifier
SANMOTION T

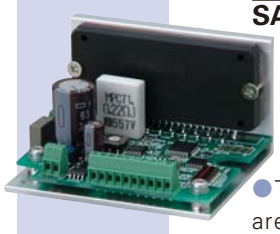
Features

●The use of the low loss power circuit reduced the loss by 30% compared to our older model. ●No cooling fan is necessary due to the reduced loss in the 30-A model. A compact model, with volume reduced by 50% compared with our older model.

Two-phases Stepping Motor
SANMOTION F
(60mm square, 0.9°/step)

Features

●A stepping motor with holding torque 2.7 times our older model, 60 mm square, basic step angle 0.9°. Compatible with our PM drivers. RoHS compliant.



Drivers for DC Stepping Motor
SANMOTION F (3 models)

For two-phases unipolar motors, two-phases bipolar motors, and five-phases stepping motors

Features

●The models for the two-phases motors are loaded with low vibration mode, improving the speed fluctuation at low speeds.

●The volume is reduced by 43% or more and the weight is reduced by 50% or more compared with our older model.

Procurement

Promotion of Green Procurement

Implementation and operation of Toxic Chemical Management Guidelines

In August 2005, we implemented the "Toxic Chemical Management Guidelines" as a guide to the management of toxic substances in the part materials and indirect materials used in our products.

These "Toxic Chemical Management Guidelines" define the management methods of the substances restricted or banned by RoHS Directives, substances banned by laws and regulations, substances designated by the Japan Green Procurement Survey Standardization Initiative (JGPSSI).

The guidelines include definition of terms, RoHS threshold values, survey sheets for chemicals that have environmental impact, and the certificate of non-use of RoHS controlled substances; both of the latter two are to be filled out by our suppliers.

Currently, our suppliers submit the survey sheets and certificates of non-use of RoHS controlled substances based on the understanding of the "Toxic Chemical Management Guidelines."

Company seminar concerning Waste Electrical and Electronic Equipment (WEEE) Directives

In January 2006, we held a seminar concerning WEEE directives, which are about the disposal of the products, inviting guests from other companies. We discussed our preparations and activities for WEEE and RoHS as well.

The WEEE Directives seminar

Green Purchasing

We actively purchase stationeries and office supplies that have low impact on the environment, including items composed of recycled materials, substitute materials, or discarded materials, and items that are refillable and with replaceable parts.

Reduction of Toxic Chemicals

The "Toxic Chemical Reduction Design Working Group," a subordinate of the Chemical Substance Emission Reduction Subcommittee, and the planning section of the business division take the initiative to work primarily on the compliance with the complete ban of RoHS Directives* restricted substances.

- The RoHS-compliance preparation work for cooling fans is nearing completion except some of the maintenance parts.
- Nearly 80% of the RoHS-compliance preparation work for stepping motors has been completed.
- The RoHS-compliance preparation work has been completed for some models of servo motors, and stepping motors/drivers.
- Review and assessment on the RoHS-compliant parts were carried out for some models of the servo amplifiers and power supplies that are the subject of RoHS products. (The models that are the subject of RoHS will be RoHS-compliant by June 2006.)
- Survey on the substances designated by the Japan Green Procurement Survey Standardization Initiative (JGPSSI) and other issues requested by customers were carried out.
- Survey on the toxic substances contained in the products in accordance with the "Toxic Chemical Management Guidelines" was carried out. (Survey through the suppliers.)

*RoHS Directives (Restriction of the use of certain chemical substances in electrical and electronic equipment): Instruction of the European Parliament and the European Council concerning regulations for the use of hazardous substances in electrical and electronic equipment
Six substances (i.e., lead, hexavalent chromium, cadmium, mercury, and certain brominated flame retardants [PBB, PBDE])

Lead-free Solder

At Fujiyama Works, which manufactures cooling fans, all solders except high melting temperature solders that are excluded from the RoHS were switched over to lead-free solders in January 2004. Since March 2006, the high-temperature solders that are excluded from the RoHS restriction have also been switched over to lead-free solders for the production processes in our company.

In addition, introduction of lead-free equipment was started in FY2004, and has been completed at Shioda Works, which is a production base of the Servo System Division and Power System Division. In FY2005, the support for the introduction of lead-free equipment in the affiliate factories was conducted.

Lead-free high-temperature solder equipment at Fujiyama Works

Production/Logistics

Energy saving in the production processes at production sites

Factory	Measures	Effect
Midorigaoka Works	(1) Equipment hydraulic pump is switched on only when the machine is in operation (2) Installment of double sheet shutters to improve air conditioning efficiency (3) Mercury lamps were replaced with energy-saving type lamps	(1) Saving energy due to the reduced pump operation time since the hydraulic pump is operated only when the hydraulic machine is in operation (2) Reduced energy loss that was caused by opening and closing of the large double door (3) Saving energy by the replacement by the energy saving type lamps with the same brightness
Shioda Works	(1) Installation of calendar timers for each piece of equipment (2) Installation of inverters in load-adjustable equipment (3) Review of the mounter program	(1) Saving energy by preventing the switch from being left on (2) Saving energy (3) Saving energy by reduced production tact time
Tsuiji Works	(1) FM control of local ventilation system (2) Control of operation time of the air compressor	(1) Saving energy because the local ventilation system is off when the processing equipment is not used (2) Saving energy
Aoki Works	(1) Prevention of air leakage, exchange and repair of equipment (2) Control of the time of operation of the air compressor (3) Adjustment of the balance of direct and indirect lighting (4) Installation of insulators on the drying ovens (5) Control of the time of operation of the air conditioning system	(1) Saving energy (2) Saving energy (3) Saving energy (4) Saving energy (5) Reduction in LPG consumption
Fujiyama Works	(1) Thinning of lights of the parking lot and walkways (2) Adjustment of the operation time of air conditioning systems (3) Promotion of photovoltaic power (i.e., for lighting and power for equipment operation) (4) Introduction of energy saving type compressors and compressor unit control panels	(1) Saving energy due to the reduced lighting time (2) Saving energy due to the reduced operation time (3) Reduced electric power consumption (4) Saving energy

PRTR Compliance

We do registration and reporting of the emission and transfer of the PRTR controlled substances for the substances whose use at each of the factories is 1 ton or more. As in the previous year, reporting is not required for lead at Fujiyama Works due to the use of lead-free solders.

Controlled substances	Controlled weight (Reporting is required for weight 1 ton or more)	
Antimony	Fujiyama Works	8.8t
Lead	Shioda Works	2.3t
Polycondensate of 4,4'isopropyliden diphenol and 1-chloro-2,3-epoxypropane	Tsuiji Works	1.3t
	Midorigaoka Works	1.3t
Styrene	Midorigaoka Works	8.1t

PRTR: A method for assessing, aggregating, and releasing data on the sources from which diverse hazardous chemicals are released, amount released to the environment, and amounts transferred off-site from industrial establishments via waste products.

Transportation

We have introduced vehicles conforming to the Diesel Exhaust Gas Regulations by the Seven Cities/Prefectures of Greater Tokyo to use for the transportation of materials between factories. We also launched a stop-idling campaign in the entire company to reduce environmental impact.

A vehicle conforming to the "Diesel Exhaust Gas Regulations by the Seven Cities/Prefectures of Greater Tokyo"


A low exhaust gas vehicle


A stop-idling sign

Packing and Wrapping

Review of stretch film substitute

Introduction of repeatedly usable substitute for stretch film, which is currently used for the prevention of collapsing of a truck load is in the process. We have carried out testing of wrapping methods, transportation, and strength using material samples. At this point, since there is yet room for improvement such as increase in the number of packing processes, the method of collection, and methods to prevent the load collapse, we will continue the review of substitutes.

Tri-wall pak

Tri-wall pak, triple-layered reusable corrugated board, is used by our overseas production subsidiaries as a packing material for shipment to Japan.


Tri-wall pak

Reuse of Transport and Logistic Materials

We request the transport companies to pick up wooden pallets that were shipped with the purchased materials, and promote reusing them for between-factory transportation.

[Other reuse examples]

Corrugated cases are picked up by the suppliers

Shock-absorbing materials are reused in the company

Mounts for inscription boards are recycled by the suppliers


Pallets

Waste/Recycling

Zero-emission activities

We participate in the Zero-emission Promotion Committee and Zero-emission Promotion Research Committee, which was formed in April 2003, of Nagano Techno Foundation,* Asama Techno-polis Regional Center, and work with companies in the local communities to promote environmental conservation activities.

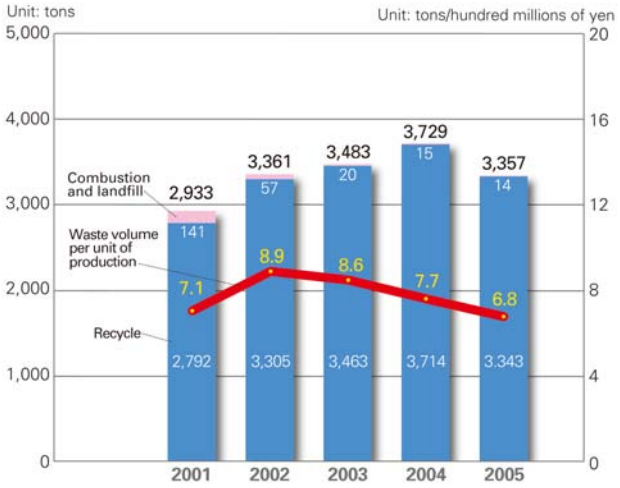
In particular, the Research Committee holds the Area Zero-emission Activities Promotion Forum, and carries out site tours to the industrial waste disposal traders to learn the waste disposal situation and to study on high quality waste disposal systems by communicating with the disposal traders.

* The aim of the Foundation is to promote upgrading of local industries and creating industries through technological innovation, utilizing local industry resources in the five areas of Nagano Prefectures, which will contribute to the local economy being activated and independent. Asama Techno-polis Regional Center is one of the foundation's organizations.
[Nagano Techno Foundation] homepage address: www.tech.or.jp
[Asama Techno-polis Regional Center] homepage address: www.asatech.or.jp

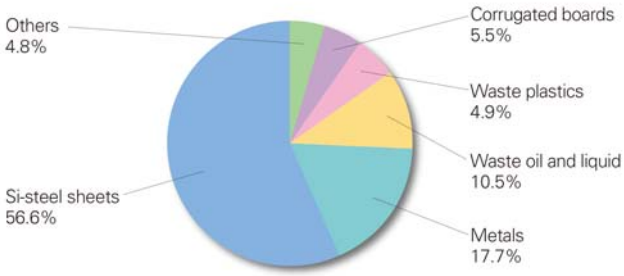
Recycling

We set a reuse center for employees in Tsuiji Works in FY2003. At the reuse center, unnecessary items such as OA equipment supplies, desks, shelves, and chairs are collected, then the usable items are sorted out from these items to reuse in the company. The center is organized to have a good assortment of items to be able to respond to various demands.

Change in Amount of Waste Release



Percentage of Waste Release by Type



The total amount of released waste in FY2005: 3,357tons

Waste		Release (tons)	Recycled(tons)/ % Recycle(%)	Recycle method
Sludge	Organic sludge	6.2	6.2 / 100.0	After separating oil and water, dehydrated residual is recycled as
	Inorganic sludge	8.2	8.2 / 100.0	After intermediate treatment, some portion is recycled as road Some portion is subjected to gasification furnace and the residual
Waste oil	Oily	11.9	11.9 / 100.0	After separating oil and water, it is recycled as fuel oil
	Water soluble (detergents, grinding liquid, others)	289.3	289.3 / 100.0	Partially reused for floor cleaning, combustion residual is recycled as cement materials
	Volatile	6.9	6.9 / 100.0	Distilled and recycled as oil
	Waste acid (batteries)	43.1	43.1 / 100.0	Milled, sorted and everything is recycled
Waste plastics	OA equipment, printed circuit boards	39.8	39.8 / 100.0	Milled, sorted and everything is recycled
	Vinyl and films	44.0	42.7 / 97.0	Refuse derived fuels (RDFs), blast furnace reducing agents, recycled for power generation fuel (thermal recycling)
	Molding scraps	51.1	51.1 / 100.0	
	Other solid	19.7	18.4 / 93.0	
	Styrofoam	12.3	12.3 / 100.0	Recycled into raw materials (material recycling) Immersed in solvent to turn into liquid raw material
Metal scraps	Scraps and remnant generated in the production	2455.7	2455.7 / 100.0	Recycled into metal materials
	Metals including empty cans	59.5	59.5 / 100.0	
Paper scraps	Old papers	12.2	12.2 / 100.0	Recycled into raw materials for paper
	Newspapers, magazines, and other papers	39.4	39.4 / 100.0	
	Corrugated boards	184.1	184.1 / 100.0	
Wood scraps	Packaging cases, pallets for transportation	52.9	52.9 / 100.0	After milling, used as combustion improver
Glass and ceramic scraps	Empty bottles, glass, and ceramics	4.1	4.1 / 100.0	After milling, used as road construction materials
	Fluorescent light bulbs and tubes	0.1	0.1 / 100.0	Milling, sorted, and recycled
Others	Paper scraps, others	16.4	5.3 / 32.3	Combustion/ reuse
	Total	3356.9	3343.2 / 99.6	

CSR Activities

Compliance(Observance of laws and Regulations)

Every factory is committed to observing the laws, ordinances, treaties and the voluntary standards defined by the company by conducting periodic monitoring and measurement according to these regulations.
We also conduct periodic emergency drills to prevent accidents and to be able to respond efficiently in the case of emergency in the facilities which could have considerable environmental impact. These are carried out in accordance with the company's norms.

Risk management seminar

A risk management seminar was held for the management staff of the whole company at the Head Office on April 27, 2005, and at the Technology Center on May 11, 2005. We invited a lawyer as a lecturer, who gave a lecture on how a supervisor should give counsel to his or her staff about sexual harassment problems in an appropriate manner. The management staff now have a good understanding of how to handle sexual harassment issues.

Norms of the Company

compost
construction materials
is recycled as cement materials

Contribution to Society

Internal Audit

Sanyo Denki conducts internal audits by the employees in order to evaluate whether the determined environmental management system is implemented according to the requirements of the standards, operated and maintained in an efficient manner.
In order to maintain fairness and objectiveness of the internal audits, we utilize a certified system of the auditors, and measures such as avoiding auditing of the division by a member who belongs to the division, carrying out audits in accordance with the internal audit standards.
The results of the audits are reported to the executive class and the audited divisions to improve the environmental management system.

Exchanges and harmony with local community

We conduct cleaning of the areas around the factories more than once a month at the Head Office, Technology Center, and factories in Japan. Aoki Works participates in the "Clean environment campaign" held by Aoki Village every year.
In FY2005, a larger scale of cleaning was carried out at Midorigaoka Works, Shioda Works, and the Technology Center on the weekend, and we continue to be involved in local community activities.


Community cleaning


Community cleaning

CSR Activities

Training and Education

Training curriculum

The training system of our company consists of three categories: training classified by positions, training for career building, and training classified by divisions.

In FY2005, we held workshops as follows:
Reduced toxic chemical design workshop in August 2005
LCA software workshop in September 2005
WEEE workshop in January 2006
ECO-PRODUCTS presentation in February 2006


Presentation of ECO-PRODUCTS

Community zero-emission forum

The "Community zero-emission forum" was held by the Zero-emission Promotion Committee on November 17, 2005. Mr. Tatsuo Tani, General Manager of Ricoh's Corporate Environment Division was the special guest lecturer, who gave a lecture about the "Environmental management of Ricoh Group." The forum was then separated in three sessions, in which the activities carried out by the participants were reported. Our company gave a presentation on old papers.


Poster session of the Zero-emission Forum

Finally, panel discussion was carried out by participants from three different fields: industries, authorities, and academic. In this forum, we re-examined and disseminated "environmentally friendly waste management approaches" by reporting the outcome of the activities of the Research Committee.

Extra-company training (award presented by the company for environmental activities)

The environmental award system for the results of environmental activities by each of the subcommittees of the Environmental Committee, and by the sites was implemented in FY2003 to aim at improvement of the environmental awareness of employees. In FY2005, activities for energy saving, waste reduction, contribution to society, volunteering, development of ECO-PRODUCTS, and toxic chemical reduction were the subjects of environmental awards.

FY2005 Environmental awards

- Shioda Works was awarded for energy saving
- Head Office was awarded for waste reduction
- Aoki Works was awarded for contribution to society and volunteer activities
- Power conditioner for photovoltaic power system, SANUPS P73D, and dual counter rotating fan SAN ACE 40 were awarded for ECO-PRODUCT development
- Cooling fan Division and Stepping motor Division were awarded for toxic chemical reduction

Safety and Health

The Safety and Health Committee is established at the Head Office and Ueda Business Operation (i.e., Technology Center and the factories) to support prevention of labor accidents, safety on the job, and maintaining healthy mind and body. Every month the Safety and Health Committee holds a meeting at each of the sites according to the company's regulations prepared based on the laws such as the Labor Safety and Sanitation Law. The Committee operates based on the Annual Plan for Safety and Health. Licensed administrators, technicians, and licensed environmental experts are assigned as the members of the Committee, which focuses on the development of the work environment and health management. Major works of the Safety and Health Committee are as follows:

Works of the Safety and Health Committee

Workplace check

Committee members carry out checks at the meeting held once a month. Whether the indicated problems in the previous month are improved, and whether there are any problems that need to be corrected are examined.

Prevention of labor accidents

Monthly checks also aim at prevention of accidents according to priority issues.

In the case that a labor accident happens, how to prevent similar accidents will be discussed, and the new measures will be taken at all the workplace in the uniform manner.

Report from the Safety and Health administrators

In the committee meetings, schedule and results of environmental measurement and inspection, and training and amendment of laws are reported by the safety and health administrators.

Promotion of health

The committee aims to have all the employees take a health checkup. Health advice and follow-up checks are also provided to those who need further medical consultation.

Nutritional advice and health counseling such as how to prevent lifestyle diseases are also given in according with the annual schedule at each site.

Mental Health

Consultation services, managers training, employees training for self care, and counseling services by the health nurses and the counselors of the company are available.


Emergency drill

Employee training

- Emergency drills are carried out
- Nutritional workshops are held

Other

Targets for FY2006 and Future Activities

We developed 14 ECO-PRODUCTS in FY2005. We will promote the R & D of environmentally sound products, focusing on the reduction of CO2 emissions at the time of operation, and LCA. We will also aim at continuous increase in sales of ECO-PRODUCTS over the total of 17.7% in FY2005.

Item	FY2006 Goals and Targets	Targets and Goals by FY2007
Promotion of ECO-PRODUCTS	Creation of ECO-PRODUCTS	Creation of ECO-PRODUCTS
Marketing & sales	Increase of ECO-PRODUCTS % sales to the total of 25% or more	Increase of ECO-PRODUCTS % sales to the total of 30% or more
Reduction of toxic chemicals	Completion of the preparation work for "RoHS lead-free" compliance	
	Completion of the preparation work for "RoHS-6 substances" compliance by June 2006	Completion of the preparation work for "RoHS-6 substances" compliance
	Reduction of PRTR substances	Reduction of PRTR substances
Reduction of electric power consumption	Maintaining the consumption at 22% reduction compared with 2000	Maintaining the consumption at 22% reduction compared with 2000
Reduction of fuel consumption	Maintaining the consumption of LPG at 44%reduction compared with 2000	Maintaining the consumption of LPG at 44% reduction compared with 2000
	Maintaining the consumption of A-type heavy oil at 14% reduction compared with 2000	Maintaining the consumption of A-type heavy oil at 14% reduction compared with 2000
Reduction of photocopy paper consumption	Maintaining the consumption at 30% reduction compared with 1999	Maintaining the consumption at 30% reduction compared with 1999
Reduction of waste	Maintaining the consumption at 19% reduction compared with 2000	Maintaining the consumption at 19% reduction compared with 2000
Contribution to society	Cleaning the areas around the factories is conducted more than once a month	Cleaning the areas around the factories is conducted more than once a month
	Participation in events related to environment	Participation in events related to environment
Promotion of zero-emission	Maintaining the recycling rate for the entire company at 98% or more	Maintaining the recycling rate for the entire company at 98% or more

Activities at each Organization

Head Office

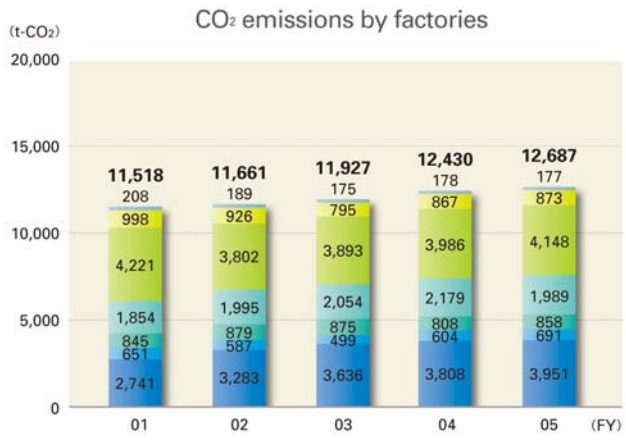
- Location: 1-15-1 Kita-otsuka, Toshima-ku, Tokyo, Japan
- Area: 1,761 m2
- Number of employees: 251
- Acquisition of ISO accreditation: March 2002

Yoshikuni Sano
Environmental Management Representative
Head Office

The Head Office set the sales of ECO-PRODUCTS as the highest priority, and aimed to expand the environmental activities at every branch office and marketing office in the company, including the implementation of measurement of consumption of power and photocopy paper at each of the organizations.

- The recognition of ECO-PRODUCTS was gained, and the sales were increased
- The consumption of power, photocopy paper, and amount of waste are maintained at the same level as before
- The number of volunteers in the cleaning activities was increased
- The consumption of power and photocopy paper was periodically measured at the branch offices and marketing offices

We intend to promote environmental activities not only at offices and factories in Japan but also including the overseas group companies



Technology Center (R & D Facility)

- Location: Ueda Research Park, 812-3 Shimonogou, Ueda-shi, Nagano, Japan
- Area: 44,908 m²
- Number of employees: 265
- Acquisition of ISO accreditation: November 1999
- PRTR-listed substances: n/a
- Other: Introduction of the photovoltaic power generation system and the gas engine cogeneration system

Midorigaoka Works

- Location: 1-1-7 Midorigaoka, Ueda-shi, Nagano, Japan
- Area: 33,423 m²
- Number of employees: 281
- Acquisition of ISO accreditation: March 2001
- PRTR-listed substances: Styrene: 8.1 tons; polycondensate of 4,4_isopropyliden diphenol and 1-chloro-2,3-epoxypropane: 1.3 tons
- Products: AC/DC servo motors, servo sensors

Shioda Works

- Location: 517 Goka, Ueda-shi, Nagano, Japan
- Area: 5,698 m²
- Number of employees: 121
- Acquisition of ISO accreditation: March 2001
- PRTR-listed substances: Lead: 2.3 tons
- Products: AC/DC servo amplifiers, stepping motors/ drivers, system controllers, UPS, printed circuit boards

■Technology Center	Item	Regulatory standard	Voluntary standard	Actual value
Air quality	Smoke and soot (g/m³N)	Not applicable		
Air Pollution Prevention Law and ordinances	Nox (ppm)	150	130	65～68
	Sox (m³N/h)	Not applicable		
Water quality	PH (pH)	5.8～8.6	–	6.1～7.1
Water Pollution Prevention Law, ordinances, and treaties	BOD (mg/L)	20	19	3.9～7.5
	SS (mg/L)	60	54	3.0～8.0
Noise	(dB)	55～65	54～64	Not applicable
Anti-noise Law, ordinances, and treaties				

Hideyuki Takahashi
Environmental Management Representative
Technology Center

The Technology Center is committed to the development of products focusing on the promotion of product designing in an environmentally sound manner, and the design of products that do not contain toxic chemicals. In FY2005, we developed 14 new products which were certified as ECO-PRODUCTS. With regard to the designing of products that do not contain toxic chemicals, we are nearing completion of the work for the RoHS-compliance for the models that are subject of RoHS, including all the models of cooling fans. We worked for the reduction of power, LPG, photocopy paper use, and waste. As for contribution to the local community, we carried out cleaning around the Research Park where our facility is located. The factories and Technology Center will further concentrate on work together focusing on energy saving and high efficiency through the development of ECO-PRODUCTS, and increase the number of products that do not contain toxic chemicals.

■Midorigaoka Works	Item	Regulatory standard	Voluntary standard	Actual value
Air quality	Smoke and soot (g/m³N)	0.30	0.03	0.0059
Air Pollution Prevention Law and ordinances	Nox (ppm)	250	200	68
		180	130	64
	Sox (m³N/h)	2.1	1.0	0.01
		1.7	0.8	0.018
Water quality	PH (pH)	No wastewater treatment tank		
Water Pollution Prevention Law, ordinances, and treaties	BOD (mg/L)	No wastewater treatment tank		
	SS (mg/L)	No wastewater treatment tank		
Noise	(dB)	60～65	59～64	47～61
Anti-noise Law, ordinances, and treaties				

Masahiro Koyama
Environmental Management Representative
Midorigaoka Works

Midorigaoka Works work for the reduction of equipment power consumption, photocopy paper use, waste, etc.

- Reduction of power by turning off the power when the equipment is not in operation (i.e., hydraulic pumps, fans, etc.)
- Introduction of high efficiency lamps
- Building network for assembly inspection, reduction of photocopy paper use by the introduction of electronic work navigation system
- Reuse of packaging materials for the purchased materials
- Volunteer cleaning activities for the local communities

■Shioda Works	Item	Regulatory standard	Voluntary standard	Actual value
Air quality	Smoke and soot (g/m³N)	0.3	0.03	0.0036
Air Pollution Prevention Law and ordinances	Nox (ppm)	180	130	70
	Sox (m³N/h)	1.3	0.7	0.017
Water quality	PH (pH)	No wastewater treatment tank		
Water Pollution Prevention Law, ordinances, and treaties	BOD (mg/L)	No wastewater treatment tank		
	SS (mg/L)	No wastewater treatment tank		
Noise	(dB)	55～65	54～64	47～54
Anti-noise Law, ordinances, and treaties				

Norio Arai
Environmental Management Representative
Shioda Works

Shioda Works work for saving energy, waste reduction, and elimination of toxic chemicals in the production processes.

- Reduction of power consumption (well-planned operation of air-conditioning system by using timers and checking the room temperature, cutback of operation time for the production lines by increasing the rate of operation)
- Reduction of A-type heavy oil (well-planned operation of boilers using timers)
- Reduction of photocopy paper use (utilizing projectors, further promotion of paper reuse)
- Reduction of waste release (careful sorting of waste)
- Promotion of zero-emission (increase of recycle rate)
- Elimination of toxic substances in the production processes (switch over of production to the RoHS-compliant models and switch over of parts to RoHS-compliant parts)
- Volunteer cleaning activities for the local communities

Activities at each Organization

Tsuiji Works

- Location: 827 Tsuiji, Ueda-shi, Nagano, Japan
- Area: 9,580 m²
- Number of employees: 29
- Acquisition of ISO accreditation: March 2001
- PRTR-listed substances: polycondensate of 4,4_isopropyliden diphenol and 1-chloro-2,3-epoxypropane: 1.3 tons
- Products: AC/DC servo motors

Tsuiji Works	Item	Regulatory standard	Voluntary standard	Actual value
Air quality	Smoke and soot (g/m³N)	0.3	0.03	0.0072
Air Pollution Prevention Law and ordinances	Nox (ppm)	250	200	68
	Sox (m³N/h)	1.7	0.8	0.017
		0.63	0.3	0.0071
Water quality	PH (pH)	5.8～8.6	–	5.2～7.0
Water Pollution Prevention Law, ordinances, and treaties	BOD (mg/L)	30	28	1.4～3.2
	SS (mg/L)	60	54	1.0～2.0
Noise Anti-noise Law, ordinances, and treaties	(dB)	55～65	54～64	Not applicable

At Tsuiji Works, in which STS business was started and the production equipment was added, we actively work for the reduction of power, waste, and photocopy paper use.
- Reduction of power (management of the operation time of the compressors; monitoring and repair of air leakage)
- Reduction of A-type heavy oil (monitoring of the temperature of the heater)
- Reduction of photocopy paper consumption
- Reduction of waste (packaging materials and containers are picked up by the suppliers)
- Volunteer cleaning activities for the local communities

Aoki Works

- Location: 252-5 Tonodo, Aoki-mura, Chisagata-gun, Nagano, Japan
- Area: 21,487 m²
- Number of employees: 150
- Acquisition of ISO accreditation: April 1999
- PRTR-listed substances: n/a
- Products: Stepping motors

Aoki Works	Item	Regulatory standard	Voluntary standard	Actual value
Air quality	Smoke and soot (g/m³N)	Not applicable		
Air Pollution Prevention Law and ordinances	Nox (ppm)	Not applicable		
	Sox (m³N/h)	Not applicable		
Water quality	PH (pH)	No wastewater treatment tank		
Water Pollution Prevention Law, ordinances, and treaties	BOD (mg/L)	No wastewater treatment tank		
	SS (mg/L)	No wastewater treatment tank		
Noise Anti-noise Law, ordinances, and treaties	(dB)	65～70	64～68	Not applicable

At Aoki Works, we work for the reduction of LPG consumption, and improvement of recycling rate.
- Reduction of electric power consumption
- Reduction of LPG consumption
- Reduction of waste and improvement of recycling rate
- Reduction of photocopy paper consumption
- Volunteer cleaning activities of the local communities

Fujiyama Works

- Location:4016 Fujiyama,Ueda-shi,Nagano,Japan
- Area:86,260m² Number of employees:337
- Acquisition of ISO accreditation:December 1999
- PRTR-listed substances:antimony: 8.8tons
- Products: Cooling fans, UPS, power supply monitor and control systems, power conditioners for photovoltaic power generation system, emergency power generator systems
- Other:Introduction of energy saving test equipment for power supply system; introduction of large capacity static type power supply devices to reduce exhaust gas and noise

Fujiyama Works	Item	Regulatory standard	Voluntary standard	Actual value
Air quality	Smoke and soot (g/m³N)	0.30	0.03	0.0029
Air Pollution Prevention Law and ordinances	Nox (ppm)	180	130	69
	Sox (m³N/h)	5.0	2.5	0.033
Water quality	PH (pH)	5.8～8.6	–	5.8～7.8
Water Pollution Prevention Law, ordinances, and treaties	BOD (mg/L)	50	48	2.1～7.0
	SS (mg/L)	60	54	2.0～8.0
Noise Anti-noise Law, Anti-noise Law, ordinances, and treaties	(dB)	55～65	54～64	Not applicable

At Fujiyama Works, we work for saving energy, elimination of toxic substances in the production processes, reduction of waste, and promotion of zero-emission.
- Saving energy (reduction of power consumption and A-type heavy oil consumption for air-conditioning systems)

In response to the amendment of the Energy Conservation Law, we aim to improve our environmental awareness by introducing the method in which power consumption and A-type heavy oil consumption can be checked on the intranet and by writing reports.
- Reduction of lead use by introducing lead-free solders
- Reduction of waste (reduction of plastic waste and corrugated boards), zero-emission
- Volunteer cleaning activities for the local communities

Corporate Profile

Yuji Kojima
Environmental Management Representative
Tsuiji Works

Katsuya Kodaira
Environmental Management Representative
Aoki Works

Hirohisa Yamazaki
Environmental Management Representative
Fujiyama Works

Established: December 31, 1936
Paid-in Capital:
9.5 billion yen (as of March 31, 2006)
Net Sales (consolidated):
64.5 billion yen (as of March 31, 2006)
Number of Employees (consolidated):
2,300 (as of March 31, 2006)

Business

Our company is committed to development of new technology and new products based on the principle of three technologies, "technology to protect the global environment," "technology to protect human health and safety," and "technology to utilize new energy sources and to save energy."

Cooling System Division

Development, production, and sales of cooling fans and cooling systems

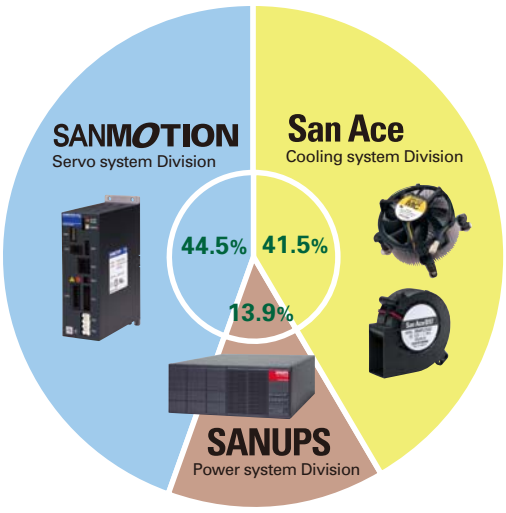
Power System Division

Development, production, and sales of uninterrupted power supplies (UPS), engine generators, power conditioners for photovoltaic power generation systems

Servo System Division

Development, production, and sales of servo motors, stepping motors/ sensors/ driving gears, and control systems

Share of sales (consolidated)



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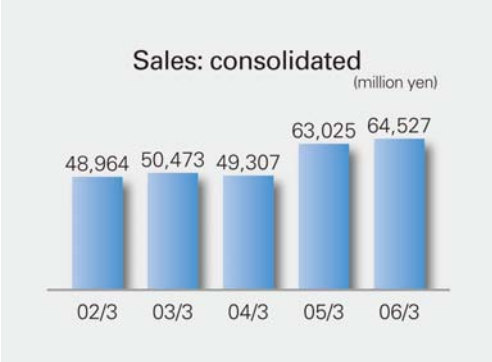

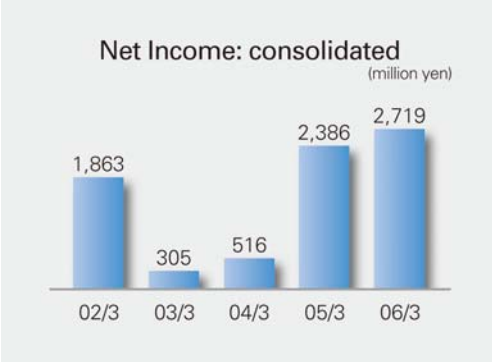

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