SANYO DENKI

Environmental Management Report 2009

SANYO DENKI CO., LTD.

Corporate philosophy

We, SANYO DENKI make the dreams of people
come true for the happiness of people
in cooperation with people.

To carry out our corporate philosophy, we do the following:

For Environment...	For society and the natural environment we help preserve the global environment and contribute to the prosperity of mankind through our corporate activities.
For Customers...	For customers and users we will create new values through technology, products and services.
For Suppliers...	For suppliers and vendors we will strive for integrated technical development and harmonious mutual prosperity through parts purchase, production contracting and joint development.
For Investors...	For investors and financial institutions we will increase our investment worth and credit through sound management policy and good access to information.
For Competitors...	For competitors and the industry we will strive to build industrial and technical development through technical alliances and competition.
For Employees...	For all of our employees we will help individuals to achieve self-fulfillment through their work and the company.

Contents

Scope of the report

Organizations covered by the report: The Head Office, the Technology Center and factories in Japan (Midorigaoka Works, Shioda Works, Tsuiji Works, Aoki Works and Fujiyama Works)
Period covered by the report: Fiscal 2008 (from April 1, 2008 through March 31, 2009; more recent information is included in the Environmental Topics section, however)

Message from the Chief Operating Officer

Efforts to preserve the global environmental are gaining momentum in all related fields. Such efforts are particularly prominent in the field of energy. Prompted by the fact that the subsidization scheme for household photovoltaic power generation systems has made a comeback, the Japanese national government has also begun to pay renewed attention to photovoltaic power generation. Given the current trends in power generation throughout the world, this is only natural. In fact, photovoltaic power generation systems are expected to come into increasingly extensive use in the future. At the same time, household fuel cell systems that have both power generation and hot water supply functions have also been released. Technologies and products for the utilization of these new energy sources are also certain to experience increasing demand in the future.

One of our major R&D themes is the utilization of new energy resources and energy saving technologies. For example, we are currently working to develop technologies that deliver a high conversion or control efficiency as part of our efforts to develop even better power conditioners, and this will have a direct impact on natural energy-based power generation, such as that using solar or wind power. We have also developed low power fans, which consume less power than conventional ones, for motors such as those used in cooling systems. The keywords behind our development of such new, environmentally-friendly products are as follows: high efficiency, high performance, high precision, small size, and low power consumption.

Sanyo Denki certifies newly developed products that satisfy a certain set of evaluation standards for environmental conservation, enabling them to be classified as “eco-products” (eco-design products). Many such eco-products have been launched and gained market acceptance. In fact, the development and marketing of eco-products are of crucial importance in all of Sanyo Denki's environmental conservation activities. The aim is to contribute, either directly or indirectly, to the conservation of the global environment through contributing to consumers' environmental conservation activities by offering them eco-products.

In January 2009, Sanyo Denki completed work on the construction of its Kamikawa Works, which went into operation in May. The Kamikawa Works is a new production site for the integrated manufacturing of a variety of servo system motors, such as servo motors, stepping motors, and linear motors. The production functions of our Midorigaoka Works, Tsuiji Works, and Aoki Works have been merged in the Kamikawa Works, which is equipped with a 150 kW photovoltaic power generation system and a rain recycling system equipped with a 200-ton tank. Various other types of environmentally-friendly equipment have also been adopted and new environmental initiatives have been implemented at this new production site.

Sanyo Denki will continue to play an active role in protecting the global environment for the future. Our environmental conservation activities are aimed at reducing the total amount of energy consumption through, among other things, reducing the environmental burden by managing product life cycles and facilitating recycling. We ask for your understanding and cooperation in supporting our activities.

Director and Managing Executive Officer
Nobumasa Kodama

Environmental Topics

Completion of the Kangawa Works

Construction of the Kangawa Works, which began in April 2008, was finally completed on January 30, 2009.
This new production site is designed to perform the integrated manufacturing of motors produced by the Servo System Division, such as servo motors, stepping motors and linear motors.

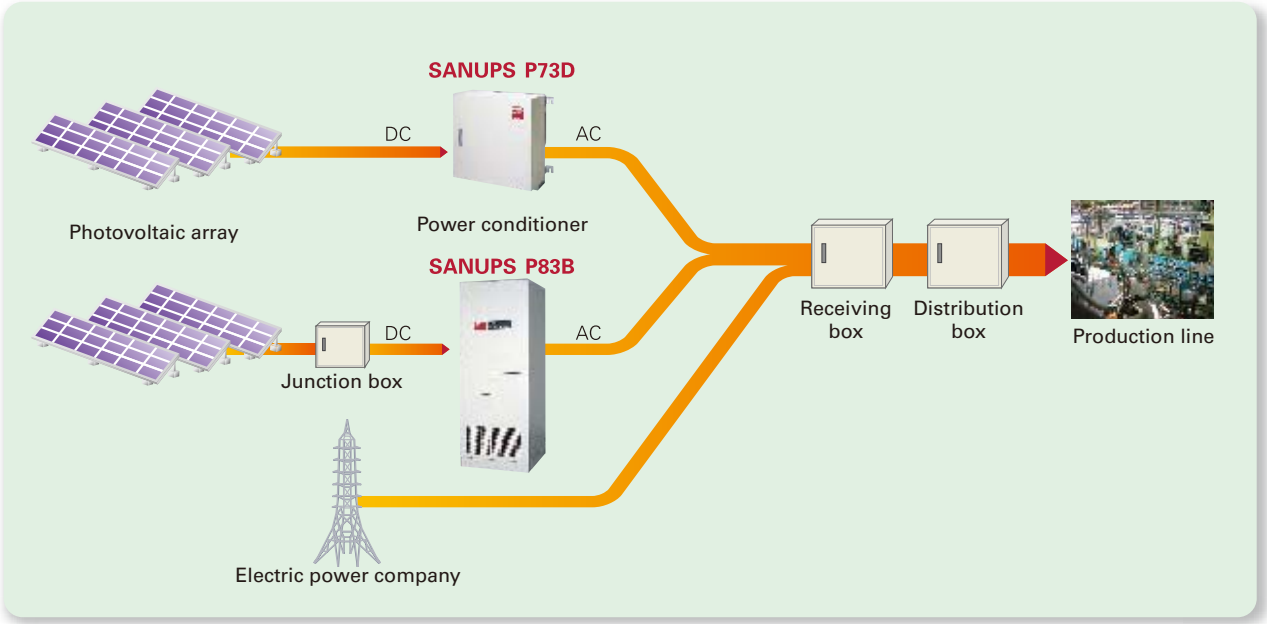
The Kangawa Works has a 150 kW photovoltaic power generation system that uses six Sanyo Denki power conditioners installed on its roof.
It is also equipped with a rain recycling system that uses a 200-ton tank to treat rainwater for use in toilet flushing and fire fighting.
The water used in production is circulated and purified for reuse; it is not discharged into natural drainage channels in its surrounding areas.

Our Kangawa Works is a cutting-edge plant that is kind to the earth's environment.

Overview of the Works

Name:	Kangawa Works
Location:	5-4, Tonoshiro, Ueda-shi, Nagano
Total area:	67,140 m²
Total floor area:	48,670 m²
Number of employees:	631
Start of operation:	May 2009
Products include:	Servo motors Stepping motors Linear motors Encoders

Photovoltaic power generation system



Environmental Policy and System

Environmental Policy

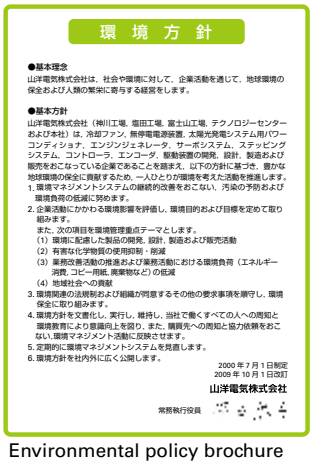
Basic Philosophy

Sanyo Denki Co., Ltd. will implement business management strategies to contribute to the conservation of the global environment and human prosperity through its activities for society and the environment.

Basic Policy

Recognizing its responsibilities as a company engaged in the development, design and sales of servo motors and amplifiers, stepping motors and drivers, servo sensors, system controllers, cooling fans, power supplies, and industrial machine control systems, every member of Sanyo Denki (at the Midorigaoka Works, Tsuiji Works, Shioda Works, Aoki Works, Fujiyama Works, the Technology Center and the Head Office) will adopt the following policy and promote activities that are environmentally friendly, with the aim of contributing to the conservation of a healthy global environment.

1. We will continuously improve the environmental management system and work hard to prevent pollution and reduce the environmental impact of our activities.
2. We will assess the environmental impact of our corporate activities and focus on our environmental objectives and targets.
We will also deal with the following as high-priority themes for environmental management.
(1) Develop, design, manufacture, and sell environmentally-friendly products
(2) Reduce or eliminate the use of hazardous chemicals
(3) Reduce the environmental impact (energy consumption, number of copies, waste, etc.) of business activities
(4) Contribute to the local community
3. We observe environmental laws, restrictions and other rules agreed upon by organizations and work hard for environmental preservation.
4. We document, carry out and maintain our environmental principles, make them known to all our employees, and ask that our employees both cooperate in the pursuit of these principles and reflect them in our environmental management.
5. We will review the environmental management system periodically.
6. We will openly publicize the environmental principles to parties in and outside the company.



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（神川工場、塩田工場、富士山工場、テクノロジーセンターおよび本社）は、冷却ファン、無停電電源装置、太陽光発電システム用パワーコンディショナ、エンジンジェネレータ、サーボシステム、ステッピングシステム、コントローラ、エンコーダ、駆動装置の開発、設計、製造および販売をおこな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、一人ひとりが環境を考えた活動を推進します。
1. 環境マネジメントシステムの継続的改善をおこない、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）業務改善活動の推進および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順守し、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、当社で働くすべての人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おこな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
2009年10月1日改訂
山洋電気株式会社
常務執行役員

Environmental policy brochure

System

It has been eight years since the Environmental Committee was established in April 2000. The committee has been working to maintain a level of energy saving and waste reduction in factories since fiscal 2004. In addition to reducing environmental burdens, the committee is also striving to reduce the volume of hazardous chemical substances and develop eco-products to achieve its major environmental management goals.

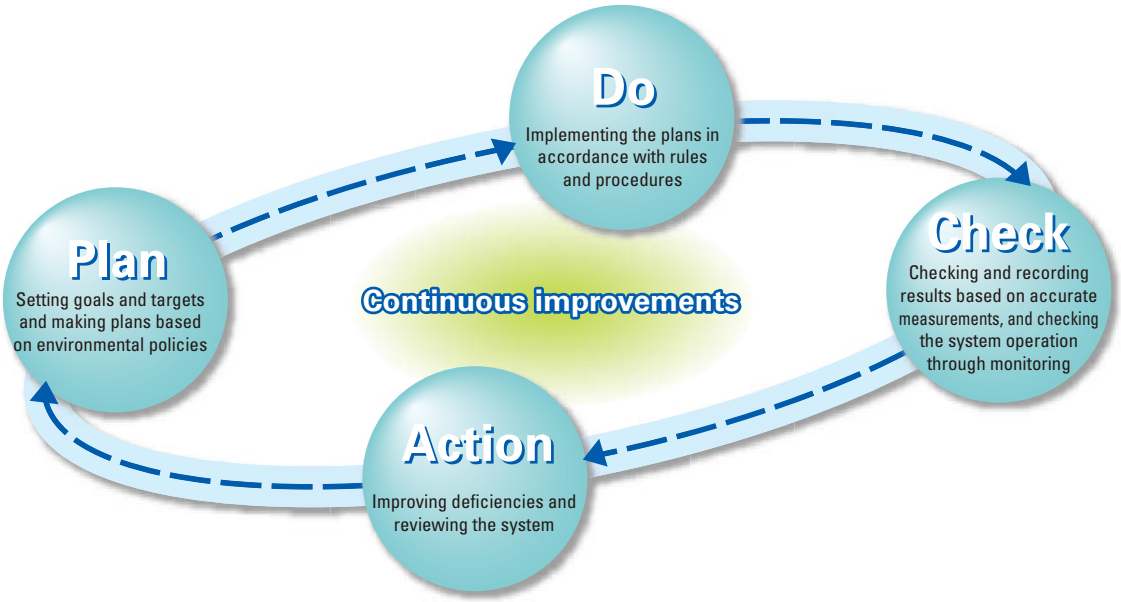
Major Responsibilities of the Environmental Committee

Formulation of policies on environmental conservation activities, and reporting and instructions on the same
Formulation and enforcement of company rules and procedures (including company-wide environmental manuals) concerning environmental conservation activities
Promotion of environmental conservation activities at the head office, factories and branch offices through those in charge of environmental management
External contacts concerning company-wide environmental conservation activities
Surveys on social situations relating to environmental conservation activities

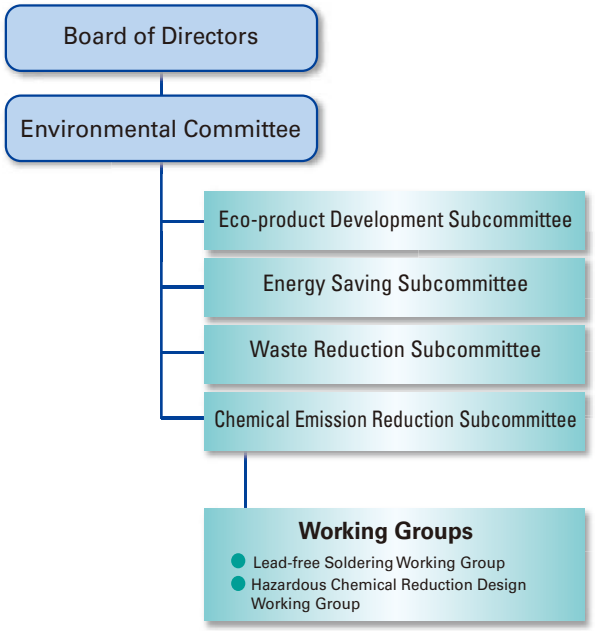
Environmental Committee

Environmental Management System

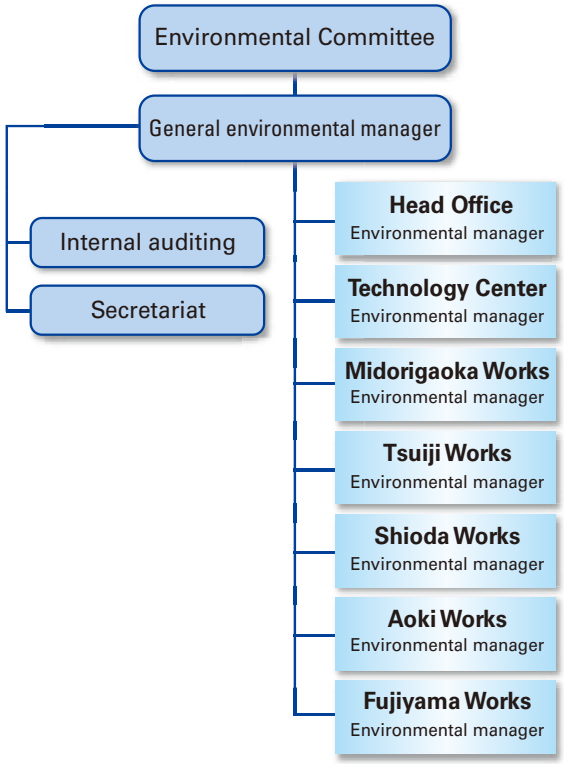
Scheme of Environmental Management System



Position of the Environmental Committee and Its Organization



Organization Chart for Environmental Management System



■Eco-product Development Subcommittee
The subcommittee promotes the development of competitive products designed to protect the environment in accordance with eco-design standards.

■Energy Saving Subcommittee
The subcommittee promotes energy saving through its daily activities for the environmental management system. It also formulates long-term energy saving strategies and proposes cost-effective investments.

■Waste Reduction Subcommittee
The subcommittee works to reduce waste and disposal costs and achieve zero emissions.

■Chemical Emission Reduction Subcommittee
The subcommittee strives to reduce emissions of hazardous chemical substances and minimize environmental pollution via self-management. It also works to promote the use of lead-free soldering and lead-free electric wires, reduce hazardous chemical substances, and develop measures for PRTR (pollutant release and transfer register).

Activity Report for Fiscal 2008

We developed 17 new certified eco-products in this fiscal year
and were also able to raise the sales ratio for eco-products to 29.5%.
We achieved a 99.6% level of zero emissions for the company as a whole.

Activity	Goal for fiscal 2008	Track record in fiscal 2008
Promotion ofeco-designing	Creation of eco-products	Seventeen new products certified as eco-products
Sales activities	Sales ratio of eco-products: 40% or higher	Sales ratio of eco-products: 29.5%
Reduction of hazardous chemical substances	Use of lead-free soldering Development of products with reducedamounts of RoHS-6 hazardous substances Reduction of substances defined in the PRTR Law	The usage rate for lead-free soldering has reached almost 100% in each department, and we will continue to promote this. Nearly all types of cooling fans and stepping motors have been converted to RoHS-6 compliant devices. Other machines are also being converted to RoHS-6 compliant devices.
Reduction in power consumption	Midorigaoka Works (6%) Tsuiji Works (6%) Shioda Works 4% Aoki Works 2% Fujiyama Works 2% Technology Center (2%) Head Office (8%)	12% (2%) 28% 27% 15% 1% 2%
Reduction in fuel consumption	A-type heavy oil: 675 kL 17% *Total of the Midorigaoka, Tsuiji, Shioda and Fujiyama Works LPG: 100,000 m3N 39% *Total of the Aoki Works and the Technology Center	36% A-type heavy oil: 520 kL 51% LPG: 80,000 m3N
Reduction in the use of copying paper	Midorigaoka Works (23%) Tsuiji Works (13%) Shioda Works 5% Aoki Works 30% Fujiyama Works 13% Technology Center 31% Head Office 38%	(16%) 19% 35% 50% 42% 46% 43%
Reduction of waste	Midorigaoka Works (51%) Tsuiji Works 63% Shioda Works (30%) Aoki Works 9% Fujiyama Works 51% Technology Center 3% Head Office 49%	(31%) 62% (12%) 31% 56% 18% 50%
Contribution to local communities	Cleaning of areas around the Head Office, the Technology Center and the factories conducted more than once every month	Goal achieved
Promotion of zero emission	Raising the recycling rate of waste company-wide to 99.5% or higher.	Company-wide rate: 99.6%

Notes: 1. The reduction rate is calculated using fiscal 2000 as the base year, except for electric power and copying paper, for which fiscal 2006 and 1999 were used as the respective base years.
2. Figures in parentheses indicate increases.

Prevention of Global Warming

Specific Measures for Energy Saving

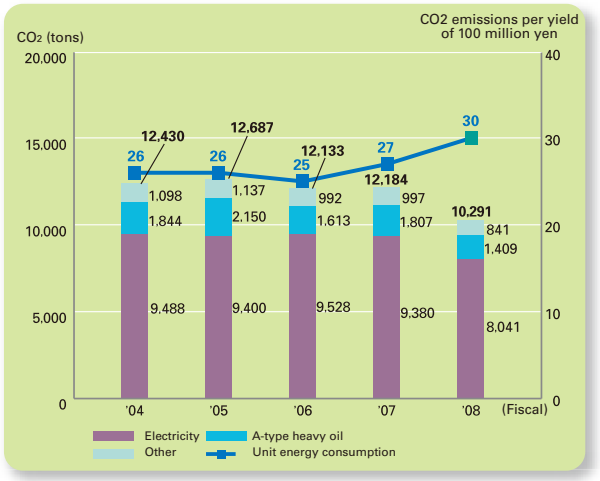
We recognize the crucial importance of energy saving activities aimed at reducing CO2 emissions as a measure to prevent global warming, and are working to promote energy saving activities by improving energy consumption efficiency and using clean energy. Compared with last year, electric power and A-type heavy oil consumption and CO2 emissions decreased in 2008. At the same time, however, there was an increase in energy consumption per production unit, due at least in part to the market climate.

Effects of introducing the monitoring system

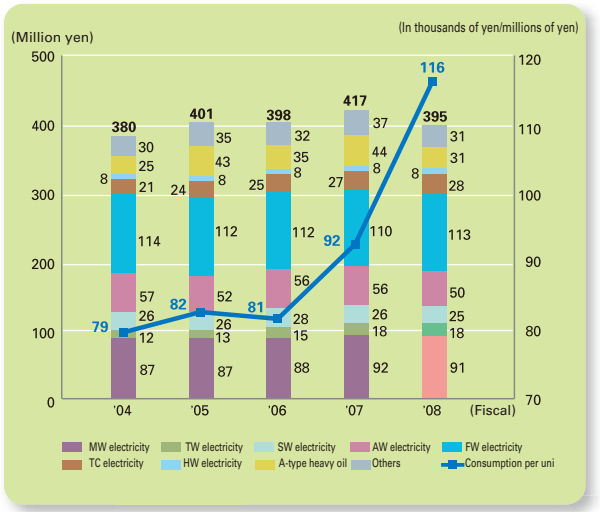
- An energy saving system was adopted when the air conditioning facilities for the F1 Building of the Fujiyama Works were renewed. The result was a 10.7% reduction in fuel consumption.

Energy measurement system

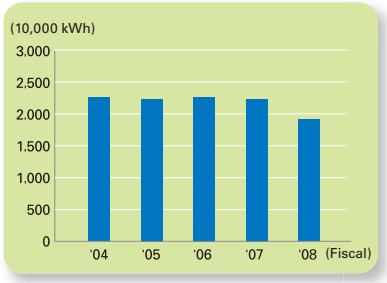
Energy consumption measured in terms of the amount of CO_2



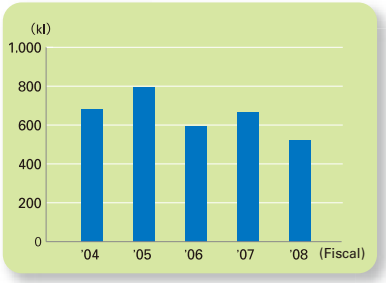
Consumption value per production value



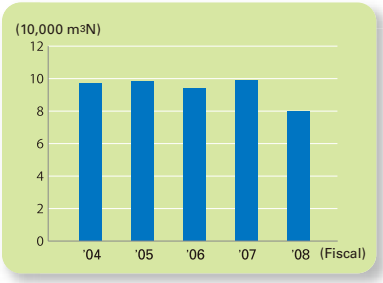
Power consumption

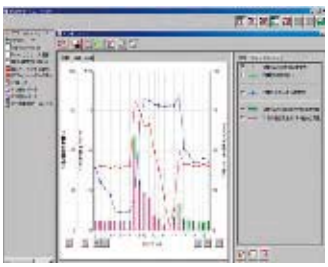


A-type heavy oil

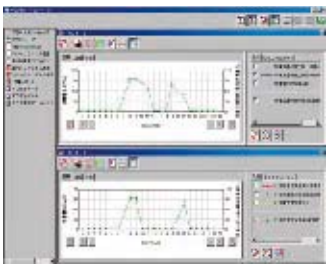


LPG





Screen to show the power consumption of building F3



Comparison with past records

Environmental Accounting

Sanyo Denki has been employing an environmental accounting system since fiscal 2003 with the aim of implementing efficient and effective measures for environmental conservation. We measure the costs required for environmental conservation in our business activities and the effects produced by these activities using quantitative indicators (measured in terms of monetary units or physical quantities) and analyze these costs and effects in order to improve the efficiency and activity levels of environment management.

"Environmental Accounting Guidelines" published by the Ministry of the Environment, Format for publication C
Data range (company-wide)

Period covered: April 1, 2008 to March 31, 2009

Track records for fiscal 2008

(1) Environmental conservation costs

The environmental conservation costs for fiscal 2008 amounted to 938 million yen, with 135 million yen for investments and 803 million yen for expenditure. Investments were concentrated on research and development costs where we worked on the development of eco-products. As for expenditures, research and development (66.4%) and management (21.9%) accounted for a large part of the expenditure.

(2) Effects of environmental conservation

The major results of our environmental management on resources input for business activities included the following: a 1,893-ton reduction in energy consumption measured in terms of the amount of CO^2 emitted; a 3.189 million kWh reduction in electric power usage; and a 1.079 million-sheet reduction in the use of copying paper. In addition, the ratio of photovoltaic power generation-based renewable energy has increased.

(3) Economic effects

In terms of the economic effects of environmental conservation, we were able to make a profit of 77 million yen through the sales of useful materials and reduce our costs by 22 million yen through energy saving measures.

Environmental Conservation Costs

(In thousands of yen)

Category		Details of major activities	Investment	Cost
(1) Costs within the area of business	1. Pollution prevention costs	Air pollution prevention (measurement of smoke and soot) Water pollution prevention (inspection of wastewater treatment tanks, extraction of sludge, sewage disposal, etc.)	0	16,154
	2. Global environment conservation costs	Periodical electricity checks	0	12,906
	3. Resource recyclingcosts	Reduction of waste, recycling, and proper waste disposal	0	50,604
	Total of items 1 through 3		0	79,664
(2) Upstream and downstream costs		Green procurement of office supplies and commissions for refurbishing and reconditioning products	0	11,002
(3) Administration costs		Development and operation of the EMS and environmental training for employees	0	176,193
(4) R&D costs		Development of eco-products (such as testing equipment and making molds)	134,962	532,928
(5) Social activity costs		Annual membership fee for the Japan Environmental Management Association for Industry, and other fees	0	3,268
(6) Environmental remediation costs			0	0
Total			134,962	803,055

Expenses include depreciation of facilities and personnel costs.

Effects of Environmental Conservation

(Note) Triangles indicate that there was no difference compared to last year.

Classification	Indicators for the effects of environmental conservation		
	Indicators for environmental burdens	Indicators	Indicator value (Note2)
Effects on resources input for business activities	Input of energy	Decrease in energy consumption	Energy consumption measured in terms of the amount of CO2: 1,893 tons of CO2
			Electricity consumption: 3,189,000 kWh
			A-type heavy oil consumption: 146.7 kL
			LPG consumption: 51.9 tons
			Kerosene consumption: △0.5 kL
			Light oil consumption: △1.0 kL
			Town gas consumption: 1,700 Nm³
		Increase in the percentage of renewable energy in total energy consumption	Photovoltaic power generation: 0.031% (company-wide)
	Input of water	Decrease in water consumption	Water consumption: 9,400 m3
	Input of other resources	Decrease in the input of other resources	Copying paper consumption: 1.079 million sheets
Effects on environmental burdens due to emissions and waste produced by business activities	Discharge of waste and other materials	Decrease in the total discharge of waste and other materials	Total discharge of waste: 691.5 tons
		Increase in the percentage of recyclable materials in the total discharge of waste	Recyclable materials and useful materials: △0.02%
		Decrease in the discharge of hazardous waste	Discharge of hazardous waste: △36.3 tons

Economic effects of environmentalconservation measures (substantive effects) (In thousands of yen)

Detail of effects		Amount
Profits	Sales of useful materials	76,861
Reduction of costs	Reduction of costs by energy saving	22,470
	Reduction of waste disposal costs by recycling	1,308
	Reduction of expenses for copying paper	8,798

Product Development

Eco-products

Initiatives for eco-designs

Sanyo Denki assesses products at the design stage and evaluates their effects on the environment during all production processes, including the supply of parts and materials, manufacturing, distribution, utilization, recycling, and disposal. Newly developed products are compared with commercially available and existing products and are certified as “eco-products” (eco-design products) if they satisfy the specified evaluation standards. In fiscal 2008, eco-products made up a total of 97 types with a sales ratio of 29.5%.

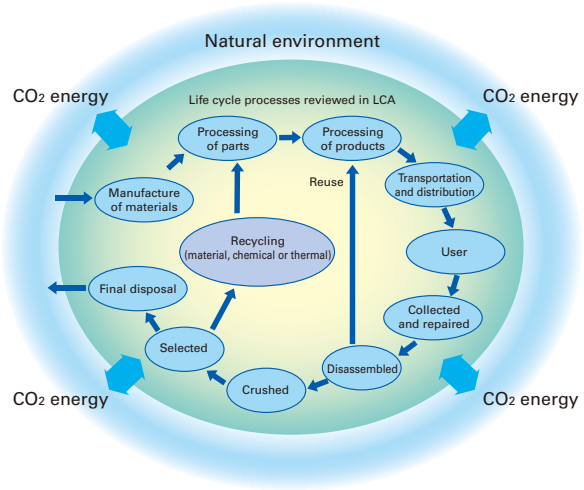
Eco-products are presented in catalogues and other materials with “LEAF symbols.”

ECO PRODUCTS

Life Cycle Assessment (LCA)

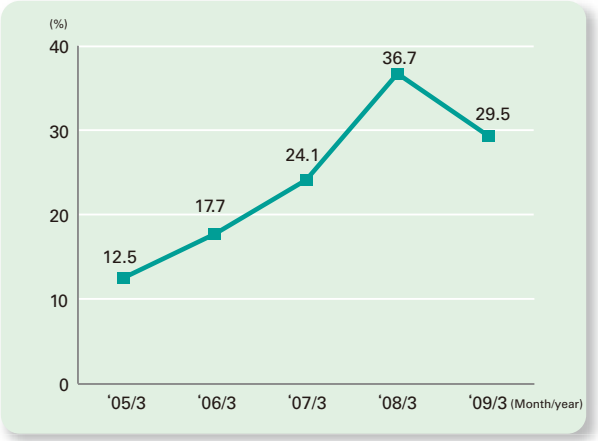
We evaluate the environmental adaptability of a product, based on its life cycle assessment. LCA is one of the techniques used to provide general quantitative measures for levels of environmental effects, including global warming, and evaluate the effects of products through their life cycles. The rate of implementing LCA in eco-products reached 88% in fiscal 2008.

Life Cycle Processes Reviewed in LCA

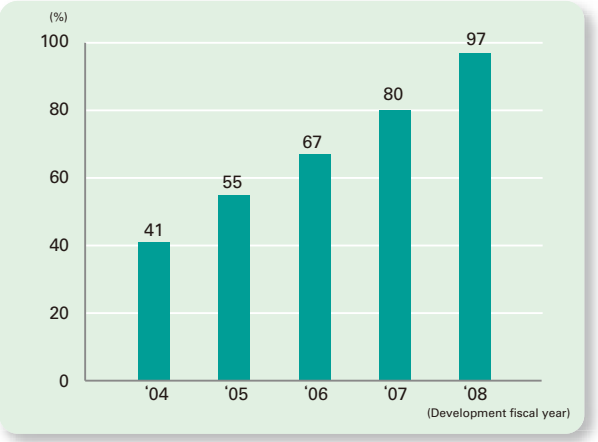


Effects on the natural environment (global warming) are assessed at each stage of the life cycle, based on the energy consumption and the amount of CO2 emission.

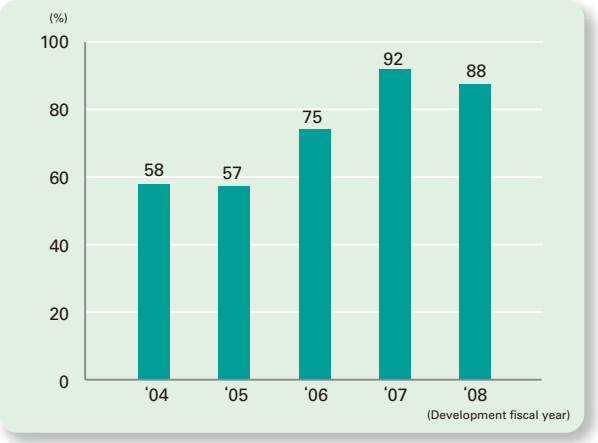
Sales ratio of eco-products



Number of Products Certified as Eco-products
(Total Number of Products in All Divisions)



LCA implementation rate



Product Development

Representative Eco-products of Fiscal 2008

Results of LCA

Seventeen new eco-products were developed in 2008. We will present the results of the LCA of three representative products. The results are based on a comparison of the amounts of CO2 emitted during the time of use between newly developed models and their immediate predecessors. Since these products are used for a long time, the reduction of CO2 emitted during the time of use will be effective in preventing global warming. The following results show the CO2 emission volumes for one year (result of LCA divided by the service life of a product).

Cooling fan San Ace 60 CR 60×60×51mm Counter rotating fan

Features

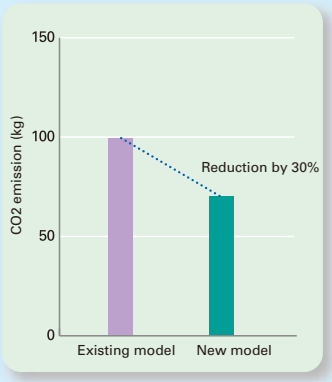
Compared with our existing models, the mass was reduced by 33% and the power consumption by 30%, while its air flow characteristics were retained.
The product is RoHS compliant.

Models compared for LCA

New model: 9CR0612PG03
Existing model: 9CR0612H001

The CO_2 emission volumes at the time of use include only the power consumption of the fans; calculated based on the assumption that they are operated at a rated rotation speed throughout their entire service lives.

Comparison of CO_2 emission



Inverter D11A D11A102A001

Features

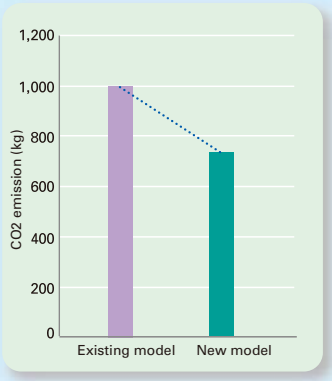
Compared with our existing models, the new model increases peak efficiency by approximately 6%.
To enable it to be mounted on a 19-inch rack, the width was reduced from 2U to 1U, while the volume was reduced by 39% and the mass by 21%.
The product is RoHS compliant.

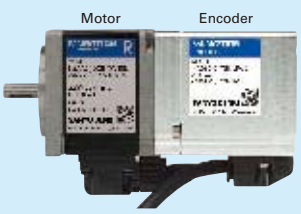
Models compared for LCA

New model: D11A102A001
Existing model: DA10SRC0-100

* The CO_2 emission volumes and efficiencies at the time of use are compared in terms of yearly values.

Comparison of CO_2 emission





Batteryless Absolute Encoder RA035

Features

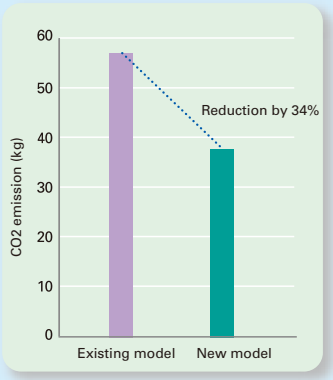
This is a batteryless encoder that retains absolute data, including that on rotation speed.
With a size of 40mm, it can be used with a compact R Series motor.
Compared with our existing models, the power consumption was reduced by 53% and the mass by 38%.
The product is RoHS compliant.

Models compared for LCA

New model: RA035: RA035-017BM2W1
Existing model: RA062: RA062-017BM1A0

The CO_2 emission volumes at the time of use are calculated based on the assumption that they are operated at the same input power for 16 hours a day, 300 days a year.

Comparison of CO_2 emission



Promoting Green Supply

Establishment and Implementation of the Chemical Substance Management Guidelines

We are implementing the "Chemical Substance Management Guidelines." These guidelines were established in August 2005 for the management of hazardous substances concerning parts and indirect materials used for our company's products.
These guidelines provide management rules concerning substances specified in laws and regulations, such as substances whose use is restricted or prohibited by the RoHS Directive, substances banned by laws and regulations, and substances designated by the Japan Green Procurement Survey Standardization Initiative (JGPSSI). They include definitions of terms, RoHS threshold values, survey questionnaires on chemical substances affecting the environment that we request our suppliers to fill out, and a guarantee form to assure that no RoHS-restricted substances are contained in the materials. We request that our suppliers understand our Chemical Substance Management Guidelines and submit the survey questionnaire and the guarantee form to ensure that no RoHS-restricted substances are contained in their supplies.

Green Purchasing

We are taking the initiative to purchase stationery and office supplies that are environmentally friendly, such as products using recycled materials, substitute materials and waste materials, refillable products and products with replaceable parts, and products designed for recycling.

Reducing Hazardous Chemical Substances

The Hazardous Chemical Reduction Working Group, a subgroup of the Chemical Substance Emission Reduction Subcommittee, is working together with design sections of manufacturing divisions to achieve the goal of eliminating substances strictly prohibited by the RoHS Directive.

- The installation of equipment required to meet the RoHS standards for cooling fans has been completed.
- The installation of equipment required to meet the RoHS standards for stepping motors has been completed.
- Measures required meeting the RoHS standards for applicable servo motors, servo amplifiers, and stepping motor drivers are being implemented and expanded. We are increasing the number of RoHS-compliant products.
- Measures required to meet the RoHS standards for power supply devices are being expanded. We are increasing the number of RoHS-compliant products.
- Preparations are currently underway to conduct a survey on hazardous substances designated by the JGPSSI and other organizations at the request of custome
- Based on the Chemical Substance Management Guidelines, a survey is being conducted on hazardous chemicals contained in products.
- Our company guidelines concerning China RoHS are being presented to adopt appropriate measures for customers.
- Analysis of six RoHS substances contained in materials is being conducted using an X-ray fluorescent (XRF) analysis system.
- Measures for PFOS and compliance with REACH

Assessments are underway to check for the presence of PFOS and SVHCs (substances of very high concern: 15) in compliance with the REACH.

* RoHS Directive: The Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment adopted by the European Parliament and the European Council
RoHS six substances: lead, hexavalent chromium, cadmium, mercury, and specified brominated flame retardants (PBB and PBDE)
* PFOS: Perfluorooctane sulfonate, commonly called PFOS (pronounced pee-foh-s). PFOS and PFOS related compounds are being debated about between the Stockholm Convention signatory countries that their production, use, and import/export should be banned on a worldwide scale as a persistent organic pollutant compound.
* REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals): The regulation in Europe to totally administer the registration, evaluation, authorisation, and restriction of chemical substances.

Lead-Free Solder

The Fujiyama Works, which manufactures cooling fans, has been using lead-free solder for high-temperature soldering since March 2006, following the introduction of lead-free solder in all manufacturing processes in January 2004 (except for high-temperature soldering exempted from the RoHS standards). Also, the Shioda Works, which is a major manufacturing branch of the Servo System Division and the Power System Division, has been working to install a series of equipment for lead-free manufacturing since fiscal 2004, and finally completed the installation.

- Cooling fans and stepping motors: Installation of equipment for surface mount soldering completed
- Servo motors: Installation of equipment for surface mount soldering completed
- Servo amplifiers and stepping motor drivers: Changing to lead-free solder is being implemented and expanded to RoHS applicable products. A shift towards lead-free products is being promoted.
- Power supply devices: The change to lead-free solder is being implemented and expanded to RoHS applicable products.

An X-ray fluorescent analysis device at the Aoki Works

Lead-free high-temperature soldering equipment at the Fujiyama Works

Production and Distribution

Energy Saving Measures Implemented in Manufacturing Processes at Factories

Works	Measures implemented	効　果
Midorigaoka Works	(1) Decrease in the idling time of machines during the night and holidays (2) Prevention of air leaks in machines (3) Use of energy-efficient equipment	(1) Savings in electricity by minimizing unnecessary holiday operation time of machinery (2) Savings in electricity by repairing air leaks in machines (3) Savings in electricity by installing a series of energy-efficient devices such as energy-saving mercury lamps and air dusters
Shioda Works	(1) Affixing calendar timers to machines (2) Redesigning of mounter programs (3) Replacement of the general aging method used in testing by the discrete aging method (4) Systematic operation of boilers according to weekly calendar timers	(1) Savings in electricity by preventing switches from being left on (2) Savings in electricity by reducing the production cycle time (3) Savings in electricity by adopting smaller aging tanks (4) Control of use of A-type heavy oil
Tsuiji Works	(1) Operation of compressors using timers (2) Installation of insulators on the exterior walls of the transfer furnace (3) Promotion of energy saving during holidays by monitoring demand data	(1) Savings in electricity by reducing the operation time (2) Savings in electricity by improving thermal efficiency and by reducing rises in room temperature (3) Savings in electricity
Aoki Works	(1) Prevention of air leaks of machines, and replacement and repair of the same (2) Management of the operating times for air compressors (3) Adjustment of the balance between direct and indirect lighting (4) Installation of insulators in the dryer (5) Separate operation management of air conditioners	(1) Savings in electricity by reducing wasted energy (2) Savings in electricity by improving the efficiency in machine operation (3) Savings in electricity by preventing heat radiation (4) Savings in electricity (5) Savings in LPG consumption
Fujiyama Works	(1) Economical use of lights at parking lots and passages (2) Adjustment of the operation time of air conditioners (3) Promotion of the use of photovoltaic energy (for lighting and power for facilities) (4) Saving of energy through the replacement of air conditioners	(1) Savings in electricity by reducing lighting hours (2) Savings in electricity by reducing operation hours (3) Savings in commercial electricity (4) Savings in electricity and reduced use of A-type heavy oil

Compliance with the PRTR Law

Sanyo Denki keeps accurate records of the amounts of discharge and transportation of PRTR-controlled substances that are required to be reported and used in amounts of more than one ton in any one of the factories, and submits reports to relevant organizations. Last fiscal year, bisphenol A epoxy resin (liquid) at the Midorigaoka Works was exempted from the reporting obligation, while it became necessary to report toluene at the Fujiyama Works. In addition, lead at the Shioda Works has been exempted from the reporting obligation since the year before last due to the change to lead-free products for RoHS compliance.

PRTR-controlled substances	PRTR-controlled substances (that are required to be reported and used in amounts of one ton or more)	
Antimony	Fujiyama Works	4.6t
Toluene	Fujiyama Works	1.3t
Bisphenol A epoxy resin (liquid)	Tsuiji Works	2.1t
Styrene	Midorigaoka Works	4.6t
Styrene	Tsuiji Works	1.4t

PRTR (pollutant release and transfer register): A system for collecting, aggregating and publishing data on various hazardous chemical substances to see how much of these substances are released into the environment from what sources, or are transferred with waste from what facilities.

Transportation

We are using vehicles that comply with the regulations on diesel car exhaust in seven municipal communities to transport supplies between factories. We are also promoting activities to stop idling in order to reduce environmental burdens.

Signboard for idling stop


Vehicle that complies with the regulations on diesel car exhaust in seven municipal communities

Reuse of Materials

We are returning wooden pallets used to transport purchased materials to carriers in order to promote their reuse.

[Other examples of reuse of materials]

Cardboard boxes: returned to suppliers

Shock absorbers: reused within the company

Inscription board mounts: recycled


Vehicle that complies with the regulations on diesel car exhaust

Waste and Recycling

Zero-emission Activities

Sanyo Denki is working as a member of the Zero-emission Promotion Committee and the Zero-emission Promotion Workshop (formed in April 2003) of the Nagano Techno Foundation* Asama Technopolis Region Center to promote environmental conservation activities in collaboration with companies in the surrounding areas.

The Zero-emission Promotion Workshop holds sessions for activity reports and makes inspection visits to member companies to see how waste is sorted by type and processed, and carefully examines how to improve waste disposal methods. The Workshop has eight subpanels to study the cooperative collecting and disposing of waste.

*The Nagano Techno Foundation was established to bring new life to the local economy and provide an autonomous basis for its development. To this end, the foundation is working to improve the level of local industries through technological innovation and develop new industries by exploiting local industry resources in five areas in Nagano Prefecture. The Asama Technopolis Region Center is one of its organizations.

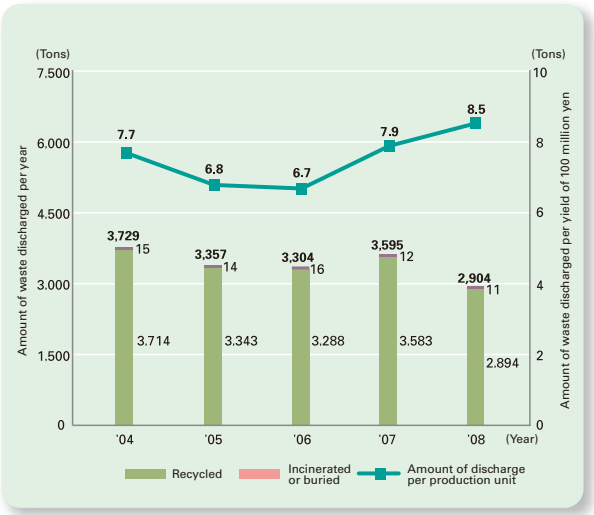
[Nagano Techno Foundation] URL: www.tech.or.jp

[Asama Technopolis Region Center] URL: www.asatech.or.jp

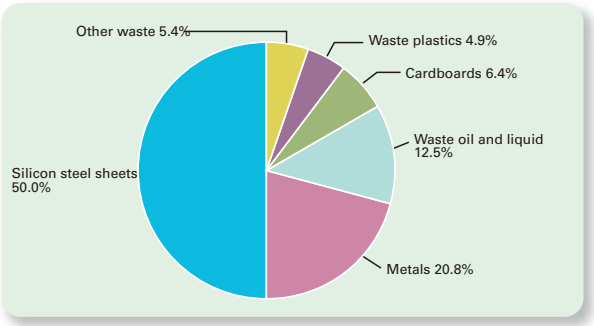
Recycling

We created a recycling to promote the in-house recycling of unneeded supplies such as OA equipment, desks, shelves and chairs.

Changes in the Amount of Waste Discharged



Percentage by Type of Waste



Waste		Amount discharged (tons)	Amount recycled (tons) / Recycling rate (%)	Recycling method
Sludge	Organic sludge	6.1	6.1 / 100	After oil and water are separated, dehydrated residues are turned into compost.
	Inorganic sludge	6.1	6.1 / 100	After intermediate treatment, some of the sludge is recycled as road construction materials. Some is also gasified by furnaces, with residues recycled as cement materials.
Waste oil	Oil-based materials	6.2	6.2 / 100	After oil and water are separated, the material is recycled as fuel.
	Water-soluble materials (detergents, grinding liquid, etc.)	262.9	262.9 / 100	After oil and water are separated, some of the treated water is released into rivers, and incinerated residues are used as cement materials.
	Volatile materials	6.2	6.2 / 100	Distilled and used as recycled oil.
	Waste acid (batteries)	86.8	86.8 / 100	Crushed, sorted and all recycled.
Waste plastics	OA equipment and circuit boards	27.9	27.9 / 100	Crushed, sorted and all recycled.
	Vinyls and films	44.9	44.9 / 100	Turned into solid fuel (refuse derived fuel), reducing agents (using furnaces) and materials for power generation (thermal recycling)
	Molding scraps	19.2	19.2 / 100	
	Other solid scraps	43.7	43.5 / 99.5	
	Styrofoam	6.5	6.5 / 100	Turned into raw materials (material recycling); immersed in solvent to be turned into soil, and recycled as raw material
Metal scraps	Scraps generated in manufacturing processes	2028.1	2028.1 / 100	Recycled as metal materials
	Metals (including empty cans)	28.2	28.2 / 100	
Paper scraps	Used paper	12.2	12.2 / 100	Turned into raw materials for recycled paper
	Newspapers, magazines, and other papers	49.4	49.4 / 100	
	Cardboards	186.2	186.2 / 100	
Wood scraps	Packages and transportation pallets	68.1	68.1 / 100	Crushed and turned into combustion improver
Glass and ceramic scraps	Empty bottles, glass, and ceramics	2.9	2.9 / 100	Crushed and turned into road construction materials
	Fluorescent light bulbs	0.05	0.05 / 100	Crushed, sorted, and recycled
Other waste	Paper scraps and other waste	12.6	10.5 / 84	Incinerated and recycled
Total		2904.2	2893.5 / 99.6	

For Local Communities and Employees

Social Contribution

Exchange and Cooperation with Local Communities

Members of the Head Office, the Technology Center and the factories in Japan clean the areas around their offices and factories more than once a month. The Aoki Works also participates in the "Clean Environment Campaign" organized by Aoki Village every year. At the Midorigaoka Works and the Shioda Works, a large scale of cleaning was carried out cooperating with the neighborhood community association. The Technology Center engaged in large scale cleaning by expanding its cleaning area.

Outdoor cleaning activities

Education and Training

Training Curriculum

Sanyo Denki's training system is composed of training programs by stratum, career training programs, and training programs by division.

In fiscal 2008, we held the following company lectures:

- August 2008

Lecture on designs for hazardous chemical substance reduction (regarding REACH regulations)

- February 2008

Briefing session on eco-products

Lectures

In-house Awards Ceremony for Environmental Activities

We have held awards ceremonies since 2003 to honor the activities of the working groups of the Environmental Committee and the results of the environmental activities of branch offices and factories, aiming to enhance the awareness of employees about the environment.

◆ Activities that were awarded honors in fiscal 2008:

- Social contribution and volunteer activities: Midorigaoka Works
- Eco-products:

AC Servo Motor "SANMOTION R," 40 × 40 to 80 × 80 mm^2

Hybrid UPS, no-break rower unit "SANUPS E"

(E11A152A001) (E11A202A001)

Internal Audits

We have employees conduct internal audits to check that the environmental management system created by the company is being properly implemented and effectively managed and maintained in accordance with regulatory requirements.
To ensure the fairness and objectivity of internal audits, we created a certification system for internal auditors to avoid the auditing of divisions by their own members and conduct internal audits in accordance with the standards for internal audits.
The results of internal audits are reported to the top management and divisions audited, with the aim of making improvements to the environmental management system.

Safety and Health

To prevent occupational accidents and to ensure the safety and mental and physical health of employees, we formed the Safety and Health Committees and opened its branches at the Head Office and the Ueda branch office (for the Technology Center and the factories). The Safety and Health Committee aims to provide a safe and healthy working environment, and to that end, it allocates officially certified administrators and experts in environmental management to ensure occupational safety and provide health care.

Activities of the Safety and Health Committee

◆ Inspection visits to workplaces

When a monthly committee meeting is held, committee members make an inspection visit to workplaces.
The committee checks whether appropriate measures have been taken to solve the problems pointed out in the previous month, and whether or not any other problems can be detected.

◆ Prevention of occupational accidents

During inspection visits to workplaces, committee members check certain priority issues to prevent occupational accidents.
All branch offices and factories are informed of occupational accidents that occur at workplaces so that they can implement appropriate measures to prevent any recurrence.

◆ Reports from administrators

The committee receives reports from safety and health administrators concerning environmental measurements, inspection schedules, announcements, training sessions and revisions to laws and regulations.
u Activities for maintaining and improving health
Medical examinations are conducted to achieve a 100% examination rate. Employees with health problems are provided with medical counseling and follow-up examinations.
The committee also provides health consultant services to prevent lifestyle diseases in accordance with the annual schedules of branch offices and factories.

◆ Mental health care

We provide contacts for consultant services, training sessions on self-care for managers and other employees, and counseling by nurses.

◆ Installation of automatic external defibrillators (AED)

Automatic external defibrillators are installed at the Head Office and the Ueda branch office (for the Technology Center and the factories).
In addition, to be able to act quickly in unexpected situations, training sessions on general emergency life-saving methods are periodically provided.

◆ Training and drills

- Emergency drills
- Lectures for dietary guidance

ent.

AED


Training on general emergency life-saving methods

Goals for Fiscal 2009 and Challenges for the Future

We created 17 eco-products in fiscal 2008. We will continue to promote the development of products designed to reduce CO_2 emissions during their use and to be eco-friendly based on LCA. The sales ratio of eco-products was 29.5% in fiscal 2008, and we will continue striving to increase the sales ratio.

Item	Goals for Fiscal 2009	Goals to be achieved by fiscal 2010
Promotion of eco-products	Creation of eco-products	Creation of eco-products
Sales activities	Sales ratio of eco-products: 50% or higher	Sales ratio of eco-products: 55% or higher
Reduction of hazardous chemical substances	Promotion of the use of lead-free solder Implementation of measures to meet the RoHS-6 standards Reduction of PRTR-controlled substances	Promotion of the use of lead-free solder Implementation of measures to meet the RoHS-6 standards Reduction of PRTR-controlled substances
Reduction in power consumption	Reduction by 3% compared to 2006	Reduction by 4% compared to 2006
Reduction in fuel consumption	Maintaining the consumption of LPG at the current level (reduced by 44% compared to 2000)	Maintaining the consumption of LPG at the current level (reduced by 44% compared to 2000)
	Maintaining the consumption of A-type heavy oil at the current level (reduced by 14% compared to 2000)	Maintaining the consumption of A-type heavy oil at the current level (reduced by 14% compared to 2000)
Reduction in copier paper consumption	Maintaining the consumption at the current level (reduced by 30% compared to 1999)	Maintaining the consumption at the current level (reduced by 30% compared to 1999)
Reduction of waste	Maintaining the consumption at the current level (reduced by 19% compared to 2000)	Maintaining the consumption at the current level (reduced by 19% compared to 2000)
Contribution to local communities	Cleaning of the area around factories once or more every month Participation in environment-related events	Cleaning of the area around factories once or more every month Participation in environment-related events
Promotion of zero-emission	Maintaining a company-wide waste recycling rate at 99.5% or higher	Maintaining a company-wide waste recycling rate at 99.5% or higher

Activities at Offices and Works

As of December 2008

Head Office

- Location: 1-15-1 Kita-otsuka, Toshima-ku, Tokyo
- Area: 1,761 m²
- Number of employees: 206
- ISO certificate obtained: March 2002

Technology Center

- Location: Ueda Research Park, 812-3 Shimonogo, Ueda-shi, Nagano
- Area: 44,908 m²
- Number of employees: 261
- ISO certificate obtained: November 1999
- PRTR-controlled substances: None
- Other:A photovoltaic power generation and a gas engine cogeneration system adopted

Midorigaoka Works

- Location: 1-1-7 Midorigaoka, Ueda-shi, Nagano
- Area: 33,423 m²
- Number of employees: 279
- ISO certificate obtained: March 2001
- Products manufactured: AC/DC servo motors and encoders

Shioda Works

- Location: 517 Goka, Ueda-shi, Nagano
- Area: 5,698 m²
- Number of employees: 108
- ISO certificate obtained: March 2001
- Products manufactured: AC/DC servo amplifiers, stepping motor drivers, system controllers, UPS's (uninterruptible power supply devices), and printed circuit boards

Tsuiji Works

- Location: 827 Tsuiji, Ueda-shi, Nagano
- Area: 9,580 m²
- Number of employees: 60
- ISO certificate obtained: March 2001
- Products manufactured: AC/DC servo motors

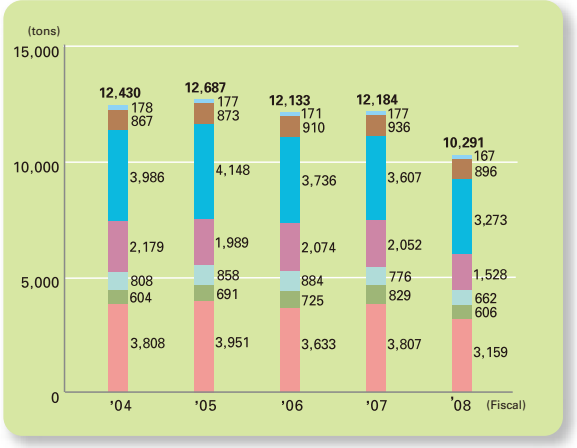
Aoki Works

- Location: 252-5 Oaza Tonodo, Aoki-mura, Chiisagata-gun, Nagano
- Area: 21,487 m²
- Number of employees: 135
- ISO certificate obtained: April 1999
- Products manufactured: Stepping motors

Fujiyama Works

- Location: 4016 Fujiyama, Ueda-shi, Nagano
- Area: 86,260 m²
- Number of employees: 554
- ISO certificate obtained: December 1999
- Products manufactured: Cooling fans, UPS's (uninterruptible power supply devices), power source monitoring systems, power conditioners for photovoltaic power generation systems, and emergency self-power generation systems
- Other: Large-scale static power supply systems adopted to save energy for testing equipment of power supply devices and to reduce exhaust and noises

Amounts of CO_2 emission by factory



Amounts of waste by factory

Environmental Managers

General Environmental Manager

Hideyuki Takahashi

Sanyo Denki established its environmental management system and obtained the ISO14001 certificate in 1999. The general environmental manager works in the environmental management system under the direction of top management to promote environmental activities at the Head Office and the factories. We aim to help our customers reduce environmental burdens when using our products and to contribute to reducing global environmental burdens by developing highly efficient products, in addition to saving energy and reducing waste at our factories. The Environmental Committee works with environmental managers at factories to organize various specialized subcommittees in order to discuss measures to make continuous improvements for the environment and to take an active part in promoting environmental conservation activities to achieve our goals.

Head Office

Fukuichi Tamegai

In addition to providing support for improving the sales ratio of eco-products and for local environmental activities, the Head Office prioritizes measures to save energy and reduce waste and copier paper consumption.

- Improvement in the sales ratio of eco-products by supporting sales activities
- Proper temperature management for air conditioning
- Improvement in the sorting of waste and the recycling rate
- Volunteer activities for cleaning areas around the Head Office

We will continue to promote environmental activities at the Head Office and all our sales offices and branches.

Technology Center

Hideyuki Takahashi

The Technology Center, which is engaged in designing and developing products, is committed to promoting eco-designs and developing products that are free of hazardous chemicals. To promote the development of products designed for the environment, we certified 17 new products as “eco-products” in fiscal 2008. To achieve our goal of developing products that are free of hazardous chemicals, we have nearly completed the installation of equipment required to meet the RoHS standards for our target products. We have also worked to reduce the consumption of electricity, LPG and copier paper as well as the amount of waste, and cleaned areas around the Ueda Research Park for the local community. We will continue to develop eco-design products and work to save energy and improve efficiency in order to help customers reduce environmental burdens when using our products.

Tsuiji Works

Yuji Kojima

The Tsuiji Works is promoting activities to save energy, reduce waste and reduce hazardous substances.

- Reduction in power consumption (operation of compressors using timers and monitoring and repairing of air leaks)
- Reduction in the consumption of A-type heavy oil (monitoring of air-conditioning temperatures and use of partition curtains)
- Reduction in the consumption of copier paper
- Reduction of waste (returning packages and containers to suppliers)
- Volunteer activities for cleaning surrounding areas (cleaning areas around the factory once a month)

Midorigaoka Works

Masahiro Koyama

The Midorigaoka Works focused primarily on saving power consumption and reducing the amount of waste.

- Lowering power consumption by reducing the idle operation of bulky equipment such as large-scale local ventilation fans and by taking measures to address air leaks
- Establishing a returnable container-based system by making a shift away from cardboard to plastic or other reusable materials
- Volunteer activities for cleaning surrounding areas (cleaning areas around the factory once a month, cleaning large areas once a year, and carrying out a large scale cleaning around the factory once a year in cooperation with three neighborhood communities)

Aoki Works

Katsuya Kodaira

The Aoki Works is promoting activities such as reducing the consumption of resources, improving the recycling rate and participating in various volunteer activities.

- Reduction in power consumption
- Reduction in LPG consumption
- Reduction of waste and improvement in the recycling rate
- Reduction in the consumption of copier paper
- Volunteer activities for cleaning areas around the factory

Shioda Works

Norio Arai

The Shioda Works is promoting activities to save energy, reduce waste, and eliminate hazardous substances from the manufacturing processes.

- Reduction in power consumption (planned operation of air conditioners by using timers and checking room temperatures, and a reduction in the operation time of production lines by improving the operation rate)
- Reduction in the consumption of A-type heavy oil (planned operation of boilers using timers)
- Reduction in the consumption of copier paper (use of projectors, use of electronic means for checking progress, and reuse of the backs of printed paper)
- Thorough sorting of waste materials and promotion of the reuse of the delivery boxes for purchased parts
- Use of lead-free surface mount soldering
- Volunteer activities for cleaning areas around the factory

Fujiyama Works

Hirohisa Yamazaki

The Fujiyama Works is reducing environmental burdens by improving fundamental work activities and is working on the promotion of activities to save energy, reduce waste, and achieve zero-emissions. In addition, activities to eliminate hazardous substances from manufacturing processes and prevent air pollution are also being worked on.

- Energy saving (a reduction in the consumption of electricity and A-type heavy oil for air conditioning).

The Fujiyama Works, a type-2 designated energy management factory, is reducing energy consumption every year.

- Reduction in the consumption of lead by using lead-free solder
- Reduction of waste (reduction of waste plastics and cardboards) and zero emission activities
- Volunteer activities for cleaning areas around the factory

Data on Air Quality, Water Quality and Noise

Technology Center	Item	Regulatory standard	Voluntary standard	Actual value
Air Quality Laws and ordinances for air pollution prevention	Smoke and soot (g/m^3N)	Exempted		
	Nox (ppm)	150	130	70~80
		600	550	210
	Sox (m^3N/h)	Exempted		
Water Quality Laws, ordinances and agreements for water pollution prevention	PH (pH)	5.8 ~ 8.6	–	7.0~7.3
	BOD (mg/L)	20	19	6.1~19.0
	SS (mg/L)	60	54	1.0~8.0
Noise Laws, ordinances and agreements for noise regulation	(dB)	55 ~ 65	54~64	Excluded from measurement

Tsuiji Works	Item	Regulatory standard	Voluntary standard	Actual value
Air Quality Laws and ordinances for air pollution prevention	Smoke and soot (g/m^3N)	0.30	0.03	0.0039
	Nox (ppm)	250	200	74
	Sox (m^3N/h)	0.63	0.3	0.007
Water Quality Laws, ordinances and agreements for water pollution prevention	PH (pH)	5.8~8.6	–	6.0~8.6
	BOD (mg/L)	30	28	2.3~6.5
	SS (mg/L)	60	54	2.0~9.0
Noise Laws, ordinances and agreements for noise regulation	(dB)	55~65	54~64	Excluded from measurement

Midorigaoka Works	Item	Regulatory standard	Voluntary standard	Actual value
Air Quality Laws and ordinances for air pollution prevention	Smoke and soot (g/m^3N)	0.30	0.03	0.0028~0.0076
	Nox (ppm)	180	130	44
		250	200	72
		180	130	82
		180	130	69
	Sox (m^3N/h)	1.7	0.8	0.009
		2.1	1.0	0.0068
		1.7	0.8	0.0068
		1.7	0.8	0.0087
Water Quality Laws, ordinances and agreements for water pollution prevention	PH (pH)	No water disposal tank		
	BOD (mg/L)			
	SS (mg/L)			
Noise Laws, ordinances and agreements for noise regulation	(dB)	60~65	59~64	51~63

Aoki Works	Item	Regulatory standard	Voluntary standard	Actual value
Air Quality Laws and ordinances for air pollution prevention	Smoke and soot (g/m^3N)	Exempted		
	Nox (ppm)			
	Sox (m^3N/h)			
Water Quality Laws, ordinances and agreements for water pollution prevention	PH (pH)	Exempted		
	BOD (mg/L)			
	SS (mg/L)			
Noise Laws, ordinances and agreements for noise regulation	(dB)	65~70	64~68	Excluded from measurement

Shioda Works	Item	Regulatory standard	Voluntary standard	Actual value
Air Quality Laws and ordinances for air pollution prevention		0.30	0.03	0.0042
	Nox (ppm)	180	130	82
	Sox (m^3N/h)	1.4	0.8	0.011
Water Quality Laws, ordinances and agreements for water pollution prevention	PH (pH)			
	BOD (mg/L)			
	SS (mg/L)			
Noise Laws, ordinances and agreements for noise regulation	(dB)	55~65	54~64	46 ~ 56

Fujiyama Works	Item	Regulatory standard	Voluntary standard	Actual value
Air Quality Laws and ordinances for air pollution prevention	Smoke and soot (g/m^3N)	0.30	0.03	0.0019~0.0046
	Nox (ppm)	180	130	63~71
	Sox (m^3N/h)	5.0	2.5	0.012~0.039
Water Quality Laws, ordinances and agreements for water pollution prevention	PH (pH)	5.8~8.6	–	6.0~7.5
	BOD (mg/L)	50	48	2.9~13.0
	SS (mg/L)	60	54	1.0~16.0
Noise Laws, ordinances and agreements for noise regulation	(dB)	55~65	54~64	Excluded from measurement

Business Profile and Company Profile

Business Profile

Sanyo Denki is working to develop new technologies and products, with the aim of creating "technologies to protect the global environment," "technologies to ensure human health and safety" and "technologies to exploit new energy sources and save energy."

■Cooling System Division

Development, manufacture and sales of cooling fans and cooling systems

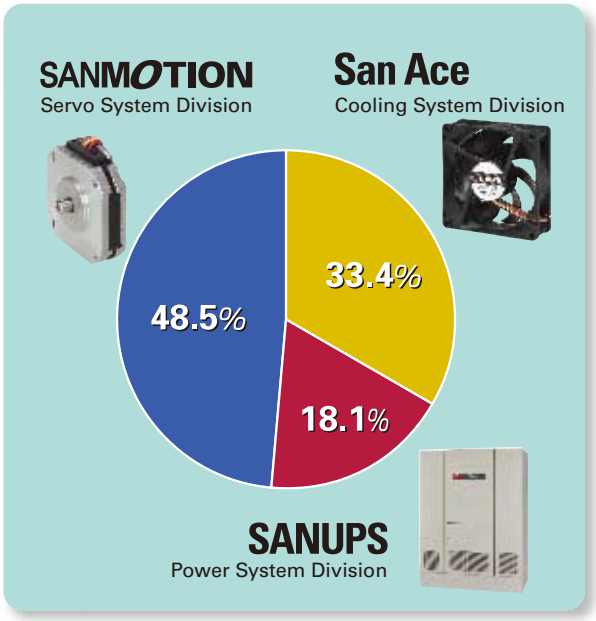
■Power System Division

Development, manufacture and sales of uninterruptible power supplies, power conditioners for photovoltaic power generation systems, and engine generators

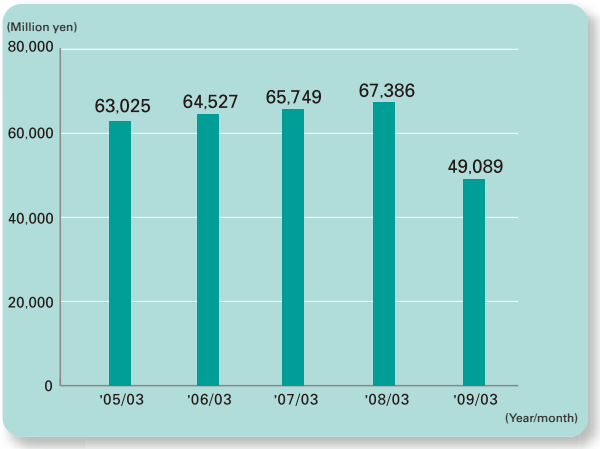
■Servo System Division

Development, manufacture, and sales of servo systems, stepping systems, controllers, drives, and encoders

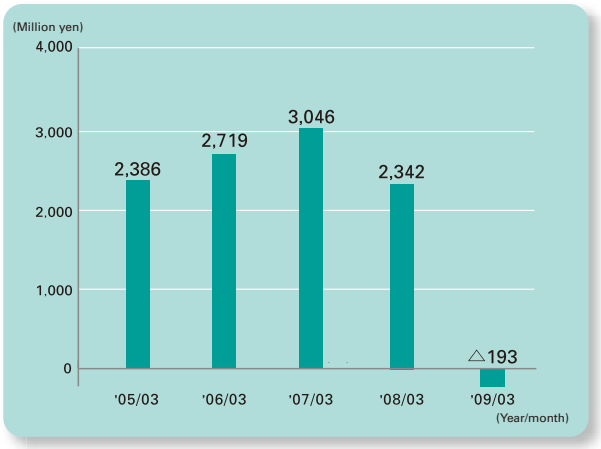
Sales Ratio (for fiscal 2008, consolidated)



Changes in Sales (Consolidated)



Changes in Current Net Income (Consolidated)



Company Profile

Founded: December 31, 1936

Capital: 9.9 billion yen (as of April 1, 2009)

Sales (consolidated):

49 billion yen (for the period from April 2008 through March 2009)

Number of employees (consolidated):

2,474 persons (as of April 1, 2009)

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