SANYO DENKI

Environmental data book 2025

A Company that Contributes to Society

Under the corporate philosophy to "We at SANYO DENKI Group Companies, aim to help all people achieve happiness, and work with people to make their dreams come true", the SANYO DENKI Group focuses on six areas: medical, information and communication, industrial, environmental protection, home automation, and energy utilization based on the following three technical themes: "technology for protecting the global environment," "technology for using new energy sources and saving energy," and "technology for protecting people's health and safety." The Group engages in the development of new technologies and products in line with these areas and technical themes.

In order to carry out our corporate philosophy, SANYO DENKI Group Companies follow an environmental policy that helps us manage our business in a manner that contributes to global environmental conservation and the prosperity of mankind through corporate activities focused on the society and the environment.

There are three main types of environmental challenges as follows.

The first challenge is to reduce environmental impact through the development of Eco Products. As part of product development, we are working to develop products that incorporate the latest energy-saving technologies. Newly developed products are compared with commercially available and existing products, and those that satisfy the specified evaluation standards are certified as "Eco Products" that reflect the fact they are environmentally-compatible products. In fiscal 2024, we introduced a new standard within the Eco Products certification criteria, designating products with significant environmental impact reduction as "Eco Products Plus" The more products that are certified as Eco Products, the greater their contribution to the environment will be. Furthermore, the sales division has set a target for the sales ratio of Eco Products and is actively working to expand their sales.

The second challenge is to conserve energy at plants. We are actively introducing PV inverters that we produce. Our group companies have a total power generation capacity of 2,700 kW across all locations.

Although many companies feel they have already done everything possible to improve energy efficiency at their factories, we have strengthened efforts to take our initiatives even further. In fiscal 2024, we achieved approximately 23 times the energy-saving effect compared to the previous year.

The third challenge is to continue waste reduction activities. We are significantly reducing the amount of general and industrial waste generated by production activities and recycling them as part of zero-emission activities. We are also actively promoting the recycling of packaging materials, such as plastic trays. This has significantly increased the waste recycling rate.

In addition, the Environmental Action Committee established in 2000 took the lead in promoting the following priority themes for environmental management: reducing the use of harmful chemical substances, reducing the environmental load generated by business activities, contributing to the local community, and protecting biodiversity and ecosystems.

Regarding these environmental challenges, we publicize specific activities and present the results we have obtained in our "Environmental Data Book" every year.

To serve a social role in environmental conservation, the SANYO DENKI Group will help realize a sustainable recycling-oriented society via corporate activities aimed at achieving both business growth and environmental conservation by promoting the use of renewable energy and striving to reduce CO_2 emissions, and also making full use of technologies developed to date.As an attractive company that aims to help all people achieve happiness, we will accelerate our environmental conservation efforts.

Chihiro Nakayama

Director
Senior Executive Operating Officer for Manufacturing

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Scope of the report

Period: Fiscal 2024 (from April 1, 2024 through March 31, 2025, in principle)

Environmental Policy

Basic Philosophy

Aligned with our corporate philosophy of "helping all people achieve happiness and working with people to make their dreams come true," the SANYO DENKI Group aims to help conserve the global environment and contribute to the prosperity of mankind through our corporate activities for society and the environment.

Basic Policy

SANYO DENKI Group designs, develops, manufactures, and sells cooling fans, UPSs, renewable energy inverters, engine generators, servo systems, stepping systems, motion controllers, encoders, and drive units. Under the principles listed below, all individuals of the Group will participate in environmentally responsible activities to help conserve our shared global environment.

1.To enhance our environmental performance, we are committed to continually improving the environmental management system, preventing pollution, and reducing the environmental impact of our activities.

2.To reduce the environmental impact of our business activities, we focus on the following by setting environmental objectives:

(1) Reduce greenhouse gas emissions to help mitigate climate change

(2) Design, develop, manufacture, and sell environmentally friendly products

(3) Limit and reduce the use of hazardous chemical substances

(4) Promote operational improvements and reduce the environmental impact of our operations (i.e., energy consumption, paper use, waste)

(5) Contribute to local communities

(6) Protect biodiversity and ecosystem

3.We will establish a framework to identify and assess environmental risks across our supply chain, formulate action plans to address these issues, and work to prevent and mitigate potential risks.

4.When our business activities are found to have caused or contributed to environmental risks, we engage with relevant stakeholders to provide appropriate remedies and take measures to prevent recurrence.

5.We will comply with environmental laws, regulations, and other applicable requirements, and remain committed to environmental conservation.

6.We ensure that our environmental policy is documented, carried out, maintained, and communicated to all of our employees through environmental training for enhanced awareness.

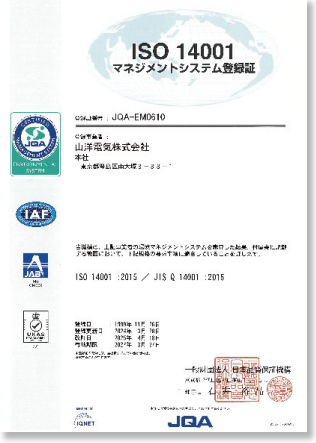
7.We will review this Policy and the environmental management system periodically.

8.We will also ensure ongoing disclosure of our initiatives under this Policy through our website.

Established: July 1, 2000
Revised: June 1, 2025
SANYO DENKI CO., LTD.
Director / Senior Executive Operating Officer
Chihiro Nakayama

ISO 14001 certificate obtained

Our Ueda Works' three bases, headquarters, and SANYO DENKI PHILIPPINES have obtained ISO 14001 certification.

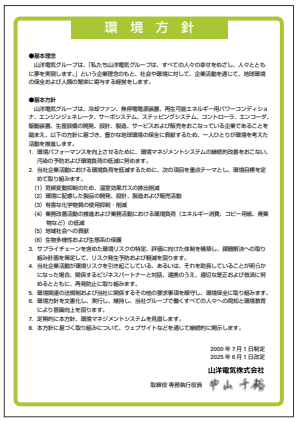


The Environmental Action Committee, established in April 2000, focuses on key themes such as energy conservation at each base, waste reduction activities, reduction of hazardous chemicals substances, and development and sales of eco-design products.

Major Responsibilities of the Environmental Committee

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

Environmental Committee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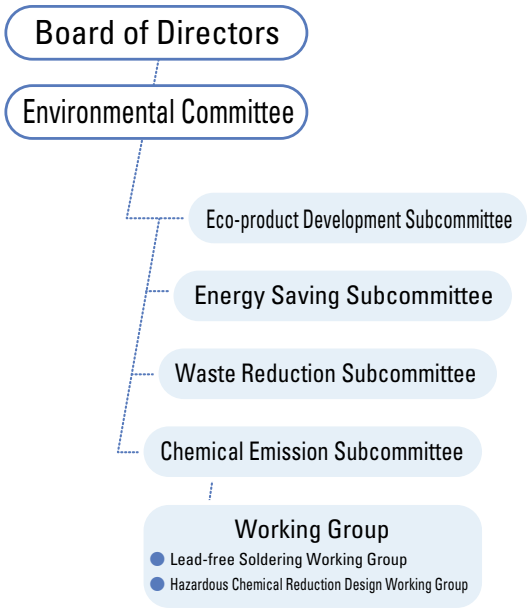
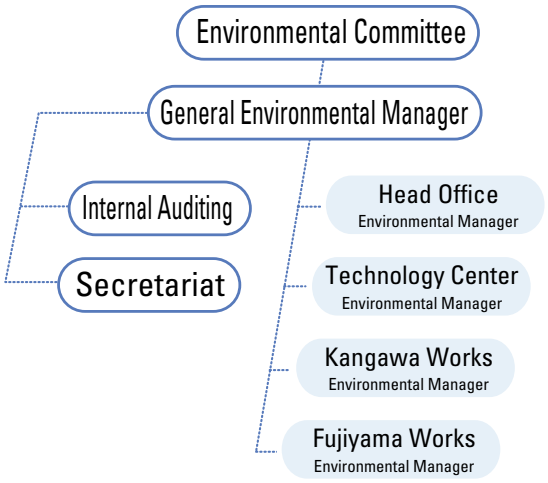
Environmental Policy Brochure

Positions within the Environmental Committee and Its Structure



Organization Chart for the Environmental Management System



○ **Eco-product Development Subcommittee**
It promotes the development of competitive products designed to protect the environment in accordance with eco-design standards.

○ **Energy Saving Subcommittee**
It promotes energy saving through its daily activities the EMS (environmental management system). It also formulates long-term energy-saving strategies and proposes cost-effective investments.

○ **Waste Reduction Subcommittee**
It works to reduce waste and disposal costs and achieve zero emissions.

○ **Chemical Emission Reduction Subcommittee**
Engages in voluntary management aimed at curtailing emissions of hazardous chemicals and attempts to reduce environmental impact. It also complies with relevant laws and regulations by investigating new restricted substances and finding substitutes for them.

Activity		Fiscal 2024 Goal	Fiscal 2024 Track record	Fiscal 2025 Goal
Promotion of eco-design		Creation of Eco Products	15 new products certified as Eco Products	Creation of Eco Products
Sales ratio of Eco Products (by business division)	Group	60%	67%	64%
	San Ace	61%	71%	67%
	SANUPS	44%	56%	53%
	SANMOTION	61%	67%	63%
Reduction of hazardous chemical substances		Use of lead-free soldering Compliance and promotion of RoHS REACH Reduction of substances defined in the PRTR Law	The usage rate of lead-free solder in each division is nearly 100% and we will maintain this level moving forward. RoHS10 substances have been replaced in almost all applicable models.	Implementation of measures to meet the RoHS directive, REACH regulation and so on. Reduction of PRTR-controlled substances
Reduction in power consumption	Kangawa Works	15%	19%	7% reduction from FY2017
	Shioda Works	(13%)	6%	
	Fujiyama Works	10%	12%	
	Technology Center	(22%)	(24%)	
	Head Office	0%	(1%)	
Reduction in fuel consumption	A-type heavy oil * Fujiyama Works	89kl 67%	85kl 69%	A-type heavy oil usage 68% reduction compared to FY2017
	LPG *Technology Center *Fujiyama Works	175,000m^3 (106%)	160,000m^3 (86%)	LPG usage Maintenance of 95% increase from FY2017
	City gas * Kangawa Works	736,000m^3 10%	700,000m^3 15%	City gas usage 1% reduction compared to FY2017
Reduction in the use of copy paper	Kangawa Works	35%	45%	Reduced by 38% compared to fiscal 2017
	Shioda Works	(213%)	(123%)	
	Fujiyama Works	41%	46%	
	Technology Center	11%	26%	
	Head Office	60%	65%	
Reduction in the use of copy paper	Kangawa Works	35%	43%	Reduced by 35% compared to fiscal 2017
	Shioda Works	59%	(99%)	
	Fujiyama Works	39%	47%	
	Technology Center	(14%)	8%	
	Head Office	23%	33%	
Contribution to local communities		Cleaning of the area around sites at least once every month Participation in environment-related events	Goal achieved	Cleaning of the area around sites at least once every month Participation in environment-related events
Promotion of zero emission	Company-wide waste recycling rate	99.7% or more	99.7%	99.7% or more

Note 1) Target bases: Headquarters, Technology Center, and domestic plants (Kangawa Works, Shioda Works, and Fujiyama Works) Excluding the Shioda Works from FY2025

Note 2) Base year for reduction rate for FY2024 is FY2017

Note 3) ( ) is an increase

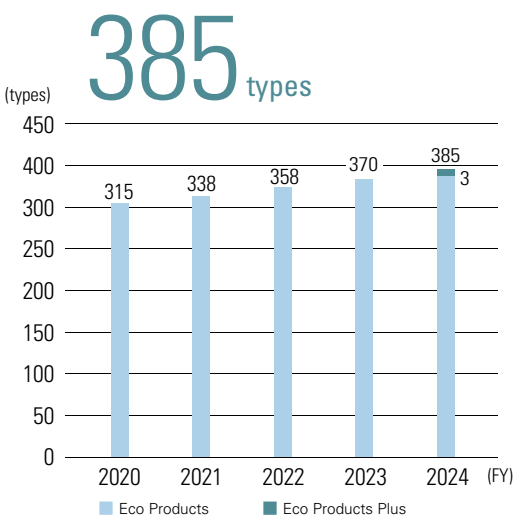
“Eco Products” Products designed for the environment

Efforts to Design for Environment

As for product design, we are carrying out R&D to incorporate the latest energy-saving technologies into our new products. At the same time, we carry out product assessments to evaluate the environmental impact of products at each stage, such as component and material procurement, manufacture, distribution, use, 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 2024,a total of 15 models were certified, including 3 Eco Products Plus and 12 Eco Products, bringing the total to 385 models.

In addition, starting from FY2024, we have established a new standard for Eco Products, designating those with significant environmental impact reduction effects as “Eco Products Plus”. “Eco Products” and “Eco Products Plus” are indicated by the symbols in our catalogs.

Number of products certified as Eco Products
(Total number of products in all divisions)



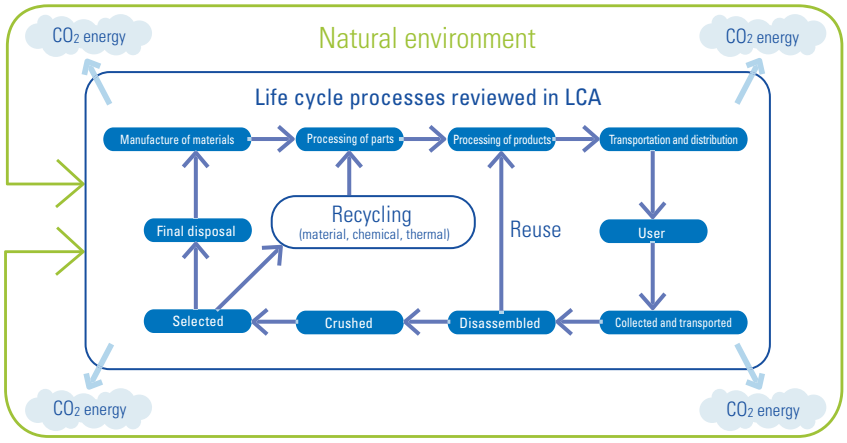
ECO PRODUCTS PLUS

ECO PRODUCTS PLUS

Life Cycle Assessment (LCA)

LCA is one of the techniques used to provide a general quantitative measure of levels of environmental impact including global warming that products have through their life cycles. We evaluate the environmental compatibility of a product using this method. Our rate of implementing LCA in our Eco Products was 100% in fiscal 2024.

Life Cycle Assessment (LCA) Area Diagram



Effects on the natural environment (global warming) are assessed at each stage of the life cycle, based on energy consumption and the amount of CO_2 emissions.

Environmental Contribution through Eco Products

We have calculated the CO_2 emission reduction achieved through our Eco Products as an indicator of our environmental contribution.
Environmental Contribution in FY2024: 731 t-CO_2

Environmental Contribution = CO_2 emissions over the entire lifecycle of conventional products – CO_2 emissions over the entire lifecycle of Eco Products

The calculation is based on Eco Products certified in FY2024 and onward.

Eco Products of Fiscal 2024

Results of LCA

In fiscal 2024, we developed three Eco Products Plus and 12 Eco Products. Life Cycle Assessment (LCA) results for three representative models are presented below. The assessment compares CO_2 emissions during the usage phase of each product's life cycle with those of their immediate predecessors. Because these products are designed for long-term use, reducing CO_2 emissions during operation is the most effective way to help mitigate global warming.

Annual CO_2 emissions, calculated by dividing total emissions over the product's design life, are shown in the bar graphs below.

Model case

SANMOTION

CO_2 emissions

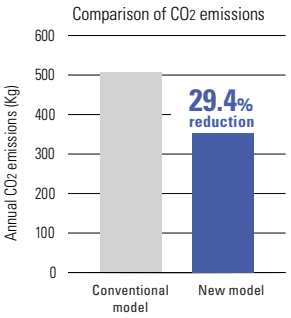
29.4% ↘

AC Servo Motor 130 mm sq.
SANMOTION G

ECO PRODUCTS PLUS

Models used for LCA comparison
New model：GAM2AB180D0XRK0
Conventional model：R2AA13180DXR00M

By newly designing the core shape, adopting low-loss materials, and improving the winding method, the model has achieved a more compact, lightweight, and energy-efficient design.



San Ace

CO_2 emissions

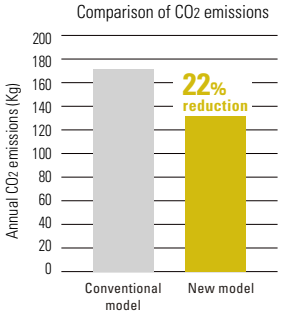
22% ↘

60 × 60 × 56 mm
Counter Rotating Fan
San Ace 60 9CRH type

ECO PRODUCTS PLUS

Models used for LCA comparison
New model：9CRH0612P6G001
Conventional model：9CRA0612P6K001
(at equivalent cooling performance)

High efficiency has been achieved through optimized impeller and frame design, as well as the latest motor and drive circuit technologies.



SANUPS

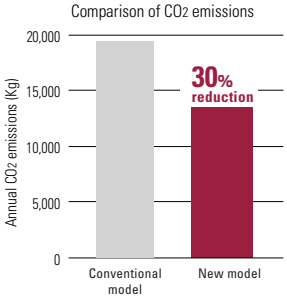
CO_2 emissions

30% ↘

Power Conditioner
SANUPS W83A

Models used for LCA comparison
New model：W83A503
Conventional model：W73A× 5 units

An advanced power conversion design and 2-phase PWM modulation contributed to high efficiency.



Judgment criteria of Eco Products

Judgment criterion items applicable from design to usage

- Downsizing
- Longer service life
- Environmental friendliness
- Product disassemblability
- Recovery and transportation
- Energy savings/efficiency improvement, power usage reduction rate
- LCA/CO_2 emission reduction rate
- Weight reduction
- Safety
- Recyclability
- Disposal processing
- Information disclosure

Eco Products sales ratio

Initiatives to combat climate change

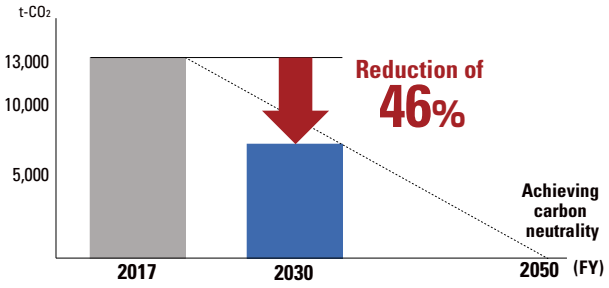
Expanded the scope of medium- to long-term CO_2 reduction targets aimed at achieving carbon neutrality

As part of our initiatives to combat climate change, SANYO DENKI CO., LTD. has expanded the scope of its medium- to long-term goals—to reduce CO_2 emissions by 46% by FY2030 (compared to FY2017 levels) and to achieve net-zero emissions by FY2050—to include all companies within the SANYO DENKI Group.

CO_2 reduction goals* (using FY2017 as a baseline)

Goals for FY2030	Reduction of 46%
Goals for FY2050	Achieving carbon neutrality

*Targets were set for the entire SANYO DENKI Group. Targeted for Scope 1 related to CO_2 emissions (direct emissions of CO_2 from the company's activities) and Scope 2 (indirect emissions from the use of electricity, heat, and steam supplied by other companies)



Specific initiatives

To accelerate initiatives to realize carbon neutrality , we have decided to switch the power used by the Technology Center in Ueda City, a research and development facility in Nagano, to "Shinshu Green Electricity" (green power derived from hydroelectric power generation) from April 2023. This makes the power used in the Technology Center switch to almost 100% renewable energy, and there are no CO_2 emissions created through the use of this electricity. We will sequentially switch the electricity used by our domestic plants to that sourced from renewable energy sources. In addition to our existing initiatives, we will realize medium- to long-term goals aimed at reducing CO_2 emissions, or "46% reduction in CO_2 emissions by 2030 and carbon neutrality by 2050", by switching to green power derived from hydroelectric power generation.

Establishment of Reduction Targets for Supply Chain Emissions

To achieve carbon neutrality across the entire supply chain, SANYO DENKI CO., LTD. has set a medium-term target to reduce CO_2 emissions in Scope 3 Category 11 (Use of sold products) by 10% per ¥1 million in sales by FY2030, compared to FY2021 levels.

Initiatives aimed at supporting biodiversity

Participated in a forest preservation activity called "Nigiyakana Mori Project" in the Ueda district of Nagano, Japan

SANYO DENKI Group has decided to participate in a forest preservation activity called "Nigiyakana Mori Project" conducted in the Ueda district of Nagano Prefecture. The project, which is carried out jointly with companies and government, aims to create sustainable forests that are thriving with living creatures, plants, and people. SANYO DENKI Group is participating in planting activities and debriefing sessions on survey results.

Outline of "Nigiyakana Mori Project"

This project was launched jointly by government and companies in four municipalities (Ueda city, Tomi city, and the towns of Nagawa and Aoki) in the Ueda district, Nagano Prefecture, in 2021. The aim of the project is to create sustainable forests that are thriving with living creatures, plants, and people. As part of this project targeting SGEC-certified forests*, participants will conduct research and study forestry industry challenges, such as forest management, forest road network management, biodiversity, carbon dioxide absorption, and natural regeneration, conduct exchange activities, and disseminate relevant information.
The signing ceremony took place in Ueda, Nagano, on September 22, 2022. Four companies, including ours, attended the ceremony to sign the pact.
In May 2025, we participated in a tree-planting gathering for"Nigiyakana Mori Project" in the Ueda area of Nagano Prefecture.

*SGEC certified forests
Forests that have been certified that they meet certain standards related to sustainable forest management and consideration for environmental conservation in a forest certification system in which an independent third-party body evaluates and certify forests according to international standards.

Energy-Saving Measures

As part of our efforts to combat global warming, we prioritize energy conservation as a key initiative and are committed to improving energy efficiency and reducing CO_2 emissions. In fiscal 2024, we implemented measures to prevent air leakage in our production facilities. These actions significantly reduced energy loss while maintaining production operations, successfully lowering CO_2 emissions.

Example of Initiatives

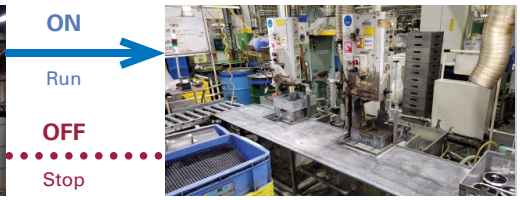
Automatic Centralized Control for Supply and Shutdown of Compressed Air for Production Equipment

—Kangawa Works Introduced centralized ON/OFF control to reduce nighttime air leakage from production equipment, with ongoing deployment across other facilities.

CO_2 reduction: 3,644 kg/year

Timer-controlled panel

Automated master valve



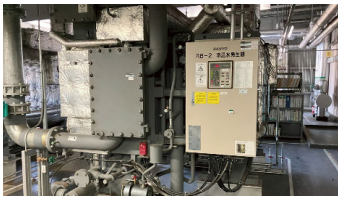
Automatic shutdown of air supply after production ends

Shutting down the building's central air conditioning system 10 minutes before the end of the workday

—Fujiyama Works Effective use of residual thermal energy from building-wide air conditioning. (Implemented for heating during winter, reducing daily operating time by 2%.)

CO_2 reduction: 10,662 kg/year

Equipment shutdown 10 minutes before the end of operations



HVAC water unit

Heat recovery

Residual heat during the final 10 minutes covers energy needs

Indoor air handling unit (AHU)

Exhaust

Residual heat

Intake

FY 2024 CO_2 Reductions Effects of Energy-Saving Measures in FY2024

Total CO_2 emissions reduction: 60,400 kg/year

Equivalent to 6,870 cedar trees or a forest area roughly 1.5 times the size of Tokyo Dome (Conversion based on Japan Forestry Agency data)

CO_2 equivalent emissions

As climate change becomes more serious, we consider energy saving activities and introduction of renewable energy to be two pillars, as well as promoting the reduction of CO_2 emissions not only at domestic plants but also at affiliated companies including those overseas.

Our supply chain emissions (Scope1, 2, 3)

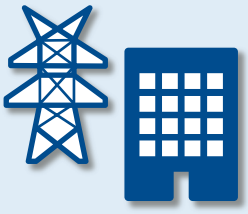
Emissions from our plants, etc.

Scope 1

Fuel combustion

3,357 t-CO_2

Scope 2



Use of electricity

6,366 t-CO_2

Emissions from the supply chain

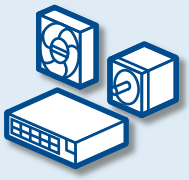
Scope 3

Raw materials

227 k t-CO_2

Transportation/ delivery

10 k t-CO_2



Use of products

3,434 k t-CO_2

Others **6 k t-CO_2**

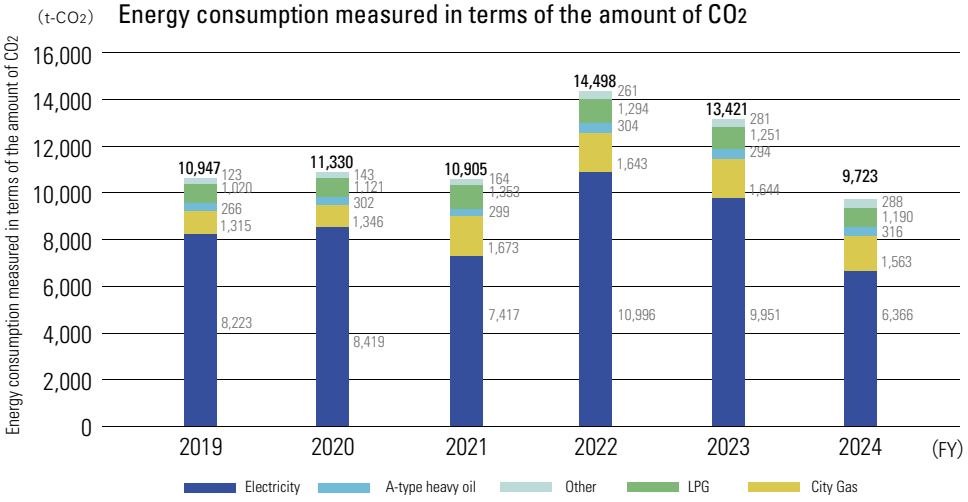
Scope1: Direct greenhouse gas emissions by businesses (fuel combustion, industrial processes)

Scope2: Indirect emissions due to the use of electricity, heat, and steam supplied by other companies

Scope3: Indirect emissions other than Scope1 and Scope2 (emissions from other companies related to business activities) Calculated for nine categories (1,2,3,4,5,6,7,9,11) out of 15 categories

Target bases: Scope1, 2: Scope1, 2: all domestic Group companies, SANYO DENKI PHILIPPINES, INC. SANYO DENKI AMERICA, INC. Scope3: All domestic bases

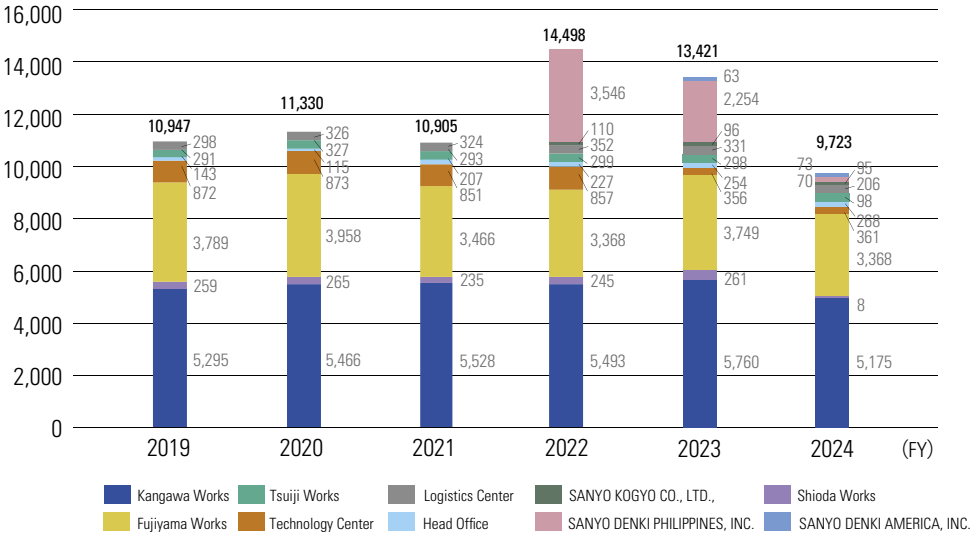
Energy consumption measured in terms of the amount of CO_2



Note : From FY2021, CO_2 emissions will be counted as CO_2 emissions from Scope.

Target bases: all domestic bases, SANYO KOGYO CO., LTD., and SANYO DENKI PHILIPPINES, INC. were added in 2022. SANYO DENKI AMERICA, INC. was added in 2023.

Amounts of CO_2 emissions by site



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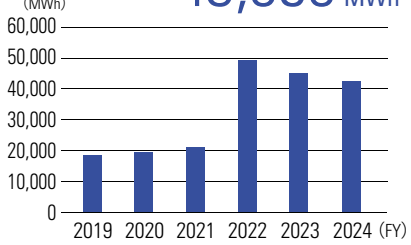
Target bases: all domestic bases, SANYO KOGYO CO., LTD., and SANYO DENKI PHILIPPINES, INC. were added in 2022. SANYO DENKI AMERICA, INC. was added in 2023.

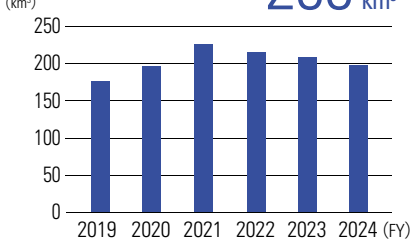
Power consumption

43,060 MWh



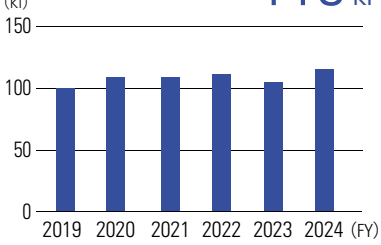
LPG

200 km³



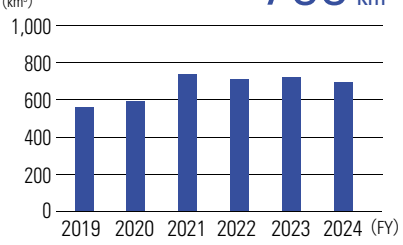
A-type heavy oil

115 kl



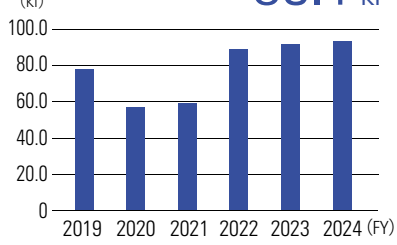
City Gas

700 km³



Gasoline

89.1 kl



Target bases: all domestic bases, SANYO KOGYO CO., LTD., and SANYO DENKI PHILIPPINES, INC. were added in 2022. SANYO DENKI AMERICA, INC. was added in 2023.

Energy Saving Measures Implemented in Manufacturing Processes at Factories

Works	Measures	Effects
Kangawa Works	(1) Unnecessary warehouse and equipment lighting is turned off (2) Promoting electricity savings when equipment is in standby status (3) Promoting the use of solar power (4) Promoted electric power conservation by introducing energy-saving equipment.	(1) Saving electricity by limiting the amount of lighting (2) Reduction in commercial electricity by powering equipment down to power saving mode when materials are out or when equipment is not in use (3) Savings in commercial power use (4) Reduced commercial power through optimal condition operations.
Fujiyama Works	(1) Adjusting the operating hours of air conditioners (2) Shifting the operating hours of production equipment (3) Adjusting the operating hours of loading equipment for tests (4) Promoting the use of solar power	(1) Energy savings through reduced operating hours and reduced the use of A-type heavy oil. (2) Savings in commercial power (3) Savings in electricity by reviewing the test run time (4) Savings in commercial power

Solar panels at Kangawa Works

Solar panels at Logistics Center

Solar panels at Fujiyama Works

PV Inverters at Fujiyama Works

Transportation

We introduced a telematics system to monitor driving conditions using electronic devices for inter-factory transportation. Since its introduction, drivers have become more conscious of safe driving, which has led to more eco-friendly driving and improved fuel efficiency.

Electric vehicles

Telematics

Diagnostic Result

Zero-emission Activities

In fiscal 2024, we promoted recycling by announcing an average recycling rate of 99.7% for the entire Company.
This goal was achieved as a result of our efforts to stop producing wastes that are simply buried or incinerated through all-out reduction and recycling of general and industrial wastes that occur in our production activities.

Reuse

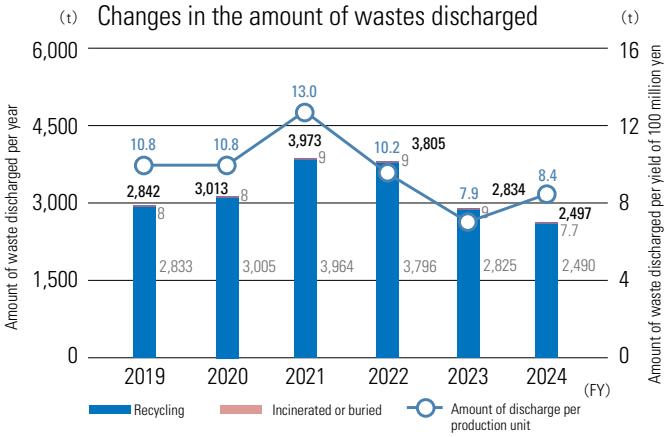
We promote in-house recycling of unneeded supplies such as OA equipment, desks, shelves and chairs.

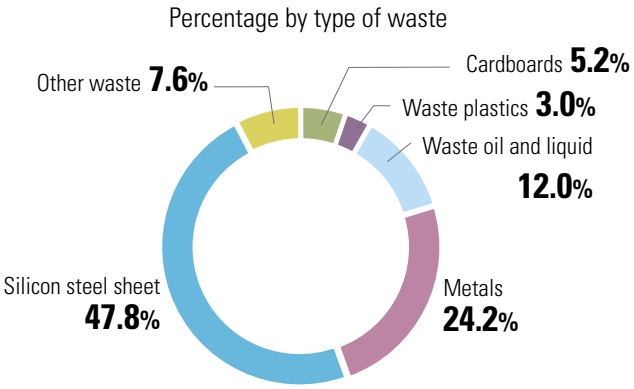
Reuse of Materials

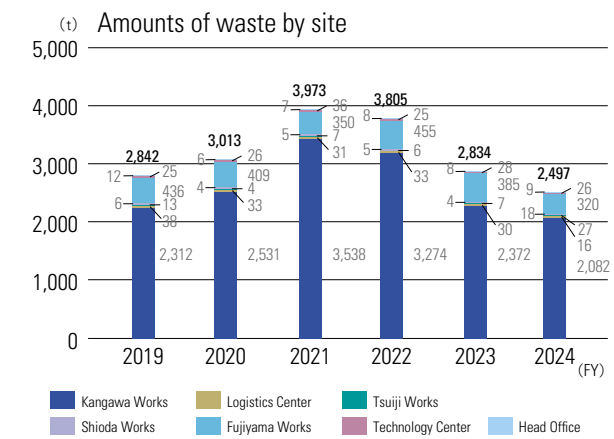
We return the wooden and plastic pallets used to transport purchased parts and materials to the companies that transport them, and promote reuse of such pallets among our bases and cooperating companies. Wooden pallets are crushed into chips and used for weed control in the plant's greenbelt, and waste plastic pallets, wire reel bobbins, trays, and empty reels are taken to a recycling company as valuable materials. At Fujiyama Works, in particular, starting from October 2023, we have been able to reduce recycling processing costs by handing over an average of 500 kg of waste plastic products per month to a recycling contractor (Narimoto Container).


Wood crusher

[Other examples of reuse of materials]
Cardboard boxes: returned to suppliers, reused as shock absorbers
Shock absorbers: reused within the company
Inscription board mounts: recycled
Waste plastic (pallets, wire reel bobbins, trays, empty reels) recycled







Establishment and Use of Chemical Substance Management Guidelines

In August 2005, we established our Chemical Substance Management Guidelines as a policy for managing hazardous substances in parts and materials used in our products, and have been implementing them ever since.

Our Chemical Substance Management Guidelines specify prohibited and controlled substances based on domestic and international regulations, such as the EU RoHS Directive, restricted substances and SVHC (Substances of Very High Concern) under the EU REACH Regulation, the Chemical Substances Control Law, and the Ordinance on Prevention of Hazards Due to Specified Chemical Substances, as well as requirements from our customers. When purchasing or making changes to components or materials, we ask our suppliers to review these Guidelines and submit a non-use declaration for prohibited substances, chemSHERPA data, and a survey questionnaire. This enables us to identify and manage the presence of hazardous substances in the materials we use. The Guidelines are revised as needed in response to changes in applicable laws and regulations (last revised in March 2025)

*EU RoHS Directive: Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment
A directive in the EU that restricts the use of certain hazardous substances in electrical and electronic equipment.
Ten restricted substances: Lead, hexavalent chromium, cadmium, mercury, specific brominated flame retardants (PBB and PBDE), bis(2-ethylhexyl) phthalate (DEHP), butyl benzyl phthalate (BBP), dibutyl phthalate (DBP), and diisobutyl phthalate (DIBP)

*EU REACH Regulation: Registration, Evaluation, Authorization and Restriction of Chemicals
A comprehensive regulatory system in the EU for the registration, evaluation, authorization, and restriction of chemical substances.

*SVHC (Substances of Very High Concern):
Substances identified as candidates for authorization, listed in Annex XIV of the REACH Regulation.

*chemSHERPA:
A standardized scheme developed under the initiative of Japan's Ministry of Economy, Trade and Industry (METI) for transmitting information on chemical substances contained in products throughout the supply chain. It is operated by the Joint Article Management Promotion Consortium (JAMP).

Management of Hazardous Chemical Substances

Led by the Environmental Technology Promotion Department and the design departments of each business unit, we manage chemical substances contained in our products and provide information on their content to our customers.

- Investigation and management of hazardous substances contained in products in accordance with the Chemical Substance Management Guidelines
- Surveys and management using chemSHERPA by the Joint Article Management Promotion Consortium (JAMP), with content information provided to customers
- Ongoing surveys on the inclusion of SVHCs (Substances of Very High Concern) under the REACH Regulation, with information provided to customers
- In order to comply with the RoHS directive, analyses are conducted at the time of material acceptance:
  - Analysis of Pb, Cd, Hg, Cr, and Br using an X-ray fluorescence analyzer (XRF)
  - Analysis of phthalic esters using a gas chromatograph mass spectrometer (PY-GCMS)
  - Simple analysis of hexavalent chromium (Cr^{6+}) using a pack test

Reduction of Hazardous Chemical Substances

We are working to reduce substances newly added to regulatory lists, as well as proactively reducing substances that are likely to be regulated in the future.

- Elimination of substances designated for phase-out under the POPs Convention: Dechlorane Plus, UV-328, and Methoxychlor
- Reduction of RoHS directive exempted applications (e.g., lead in metals) in San Ace and SANMOTION products

Green Purchases

Our company actively purchases stationery and office supplies that are environmentally friendly, such as products using recycled materials, substitute materials and waste materials, refillable products, products with replaceable parts, and products designed for recycling.

Gas chromatograph mass spectrometer

X-ray fluorescence analyzer (XRF)

Compliance with the PRTR

Our company submits reports on the discharge and transfer volumes of PRTR-designated substances when the annual usage exceeds one ton at each factory.

In fiscal 2024, two substances were subject to reporting: styrene at the Kangawa Works and methyl naphthalene at the Fujiyama Works.

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.

PRTR-controlled substances	Amount handled/FY2024 (Reportable: 1t or more)	
Styrene	Kangawa Works	9.6t
Methylnaphthalene	Fujiyama Works	1.1t

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) to the greatest extent possible, and analyze these costs and effects in order to improve the efficiency and activity levels of environment management.

Performance in fiscal 2024

(1) Environmental Conservation Costs

Environmental conservation costs in FY2024 totaled 1,730 million yen, comprising 536 million yen in investments and 1,194 million yen in costs and expenses.As a case of investment related to global environmental conservation, we updated the air conditioning outdoor units at the Kangawa Works and the compressors at the Fujiyama Works. In R&D, we worked on developing environmentally compatible design products. Regarding costs and expenses, R&D costs and management activity costs accounted for high proportions of 54% and 24%, respectively.

(2) Environmental Conservation Effects

Due to a decrease in production volume at our bases and ongoing energy-saving efforts, energy input at all domestic bases was reduced by 610 Mkwh of electricity and 14 km^3 of LPG. In addition, CO_2-equivalent emissions were reduced by 1,523 t-CO_2 thanks to the expanded use of renewable energy-derived electricity.

(3) Economic Effects

Energy-related costs increased by 17 million yen compared to the previous fiscal year due to the effects of energy conservation being offset by higher unit prices for electricity and fuel. Profits from the sale of valuable materials were 76 million yen, a decrease of approximately 19% from the previous fiscal year. In addition, purchase costs for copy paper and other supplies decreased by 1.2 million yen from the previous fiscal year.

"Environmental Accounting Guidelines" published by the Ministry of the Environment, Format for publication C

Data range (company-wide)

Period covered: April 1, 2024 to March 31, 2025

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.)	30,820	35,931
	2. Global environment conservation costs	Periodic electricity checks	120,637	140,456
	3. Resource recycling costs	Reduction of waste, recycling, and proper waste disposal	0	72,281
	Total of items 1 through 3		151,457	248,667
(2) Upstream and downstream costs		Green procurement of office supplies and commissions for refurbishing and reconditioning products	0	1,557
(3) Administration costs		Development and operation of EMS and environmental training for employees	30,034	291,236
(4) R&D costs		Development of Eco Products (such as testing equipment and molds)	354,402	646,831
(5) Social activity costs		Annual membership fee for the Japan Environmental Management Association for Industry, and other fees	0	5,369
(6) Environmental damage measure costs		Assessment of soil contamination, and costs for countermeasures	0	0
Total			535,893	1,193,660

Expenses include depreciation of facilities and personnel costs.

Effects of Environmental Conservation

Classification		Environmental performance indicators (unit)		Fiscal 2023	Fiscal 2024	Effects of Environmental Conservation
Effects on resources input for business activities	Input of energy	Energy consumption	Energy consumption measured in terms of the amount of CO_2	11,008	9,485	1523
			Electricity consumption (MWh)	19,370	18,760	610
			A-type heavy oil consumption (kl)	106.8	114.6	△ 7.8
			LPG consumption (km^3)	210	196	14
			Kerosene consumption (kl)	1.1	1.3	△ 0.2
			Light oil consumption (kl)	6.1	12.5	△ 6.4
			City Gas consumption (km^3)	736	700	36
			Gasoline consumption (kl)	60.4	58.6	1.8
		Percentage of renewable energy in total energy consumption	Photovoltaic power generatio (%)	13.37	20.62	7.25
	Input of water	Water consumption (km^3)		51.0	48.5	2.53
	Input of other resources	Input of other resources	Copy paper consumption (10,000 sheets)	386	352	34
Effects on environmental burdens due to emissions and waste produced by business activities	Discharge of waste and other materials	Total discharge of waste and other materials	Total discharge of waste (t)	2,834	2,497	337
		Percentage of recyclable materials in the total discharge of waste	Recyclable materials and valuables (%)	99.7	99.7	0.0
		Discharge of hazardous waste (t)		3.1	3.7	△ 0.6

Economic Effects of Environmental Conserving Measures (Substantive Effects)

(In thousands of yen)

Classification		Amount
Profits	Sales of valuables	75,795
Reduction of costs	Reduction of costs by energy saving	△ 17,139
	Reduction of waste disposal costs by recycling	4,078
	Reduction of expenses for copy paper	1,204

General Environmental Manager　Akio Miyahara

SANYO DENKI established an environmental management system and acquired ISO 14001 certification in 1999. Under the leadership of top environmental management, a general environmental management manager has been appointed to promote environmental initiatives. At each site, we are engaged in activities such as promoting energy conservation, introducing CO_2-free electricity, and reducing waste. In product development, we are working to reduce environmental impact during product use by our customers through the development of low-loss and high-efficiency products, as well as by supplying power conditioners compatible with various renewable energy sources. We also actively disclose environmental information both inside and outside the company and place great importance on communication with stakeholders. The Environmental Action Committee, composed of environmental management managers from each site and specialized subcommittees, deliberates on continuous environmental improvement initiatives, sets goals, and actively promotes environmental conservation activities.

Head Office　Shogo Sakamoto

The number of employees is as of March 2025

- Location : 3-33-1 Minami-Otsuka, Toshima-ku, Tokyo
- Area : 3,378 m^2
- Number of employees : 260
- ISO certificate obtained : March 2002

At head office, operations are conducted by the sales, administrative and business divisions. Important targets for reducing our environmental impact include increasing the percentage of sales accounted for by Eco Products, conserving energy, separating and reducing trash, decreasing copy paper usage and volunteering in local area clean-ups.

- Ascertaining and increasing the percentage of sales accounted for by Eco Products in each division
- Power consumption reductions
- Separating and reducing trash
- Waste recycling rate improvements
- The use of digitized forms and paperless meeting materials led to a reduction in the amount of copy paper used.
- Volunteering in local area clean-ups

Going forward, all divisions will continue to promote environmental activities.

Technology Center　Akio Miyahara

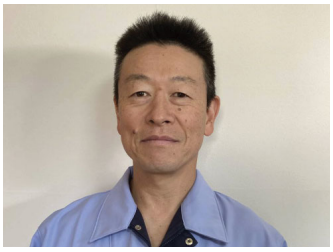
- Location : Ueda Research Park, 812-3 Shimonogo, Ueda-shi, Nagano
- Area : 44,908 m^2
- Number of employees : 341
- ISO certificate obtained : November 1999

At the Technology Center, which is responsible for product design and development, we are actively working to develop environmentally friendly products with low environmental impact and free from hazardous chemical substances by promoting eco-design. In fiscal 2024, 15 newly developed models were certified as “Eco Products,” our eco-design product line. Among them, 3 models were further certified as “Eco Products Plus” due to their superior environmental performance. To ensure the design of products free from hazardous substances, we are working to comply with relevant global laws and regulations, such as the RoHS Directive and the REACH Regulation. We also implemented activities to reduce electricity, LPG, and copy paper usage, as well as to reduce waste, and carried out clean-up activities around the Ueda Research Park where we are located. Going forward, we will continue to promote efforts to reduce the environmental impact of our customers’ product use by enabling energy conservation through eco-design, improving efficiency, and supporting power reuse through regeneration functions.

The number of employees is as of March 2025

Kangawa Works Musha Masaki

- Location : 5-4 Tonoshiro, Ueda-shi, Nagano
- Area : 67,140 m^2
- Number of employees : 634
- ISO certificate obtained : March 2010
- Major products : AC / DC servo motors, stepping motors, and linear servo motors

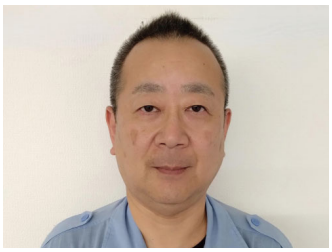


At the Kangawa Works, we are engaged in initiatives to reduce energy consumption through automation, work improvements, and upgrades to production equipment. We also promote energy conservation by turning off unnecessary lighting, reducing waste and copy paper usage, and striving for zero emissions.

- In the motor assembly and inspection processes, a production and inspection guidance system has been introduced to prevent operational mistakes and accidental leakage of defective products so that unnecessary processes can be omitted. Also, the use of paper check sheets has been discontinued, leading to a reduction in copy paper use.
- Saving energy and reducing labor-hours by introducing automation equipment utilizing a servo system.
- Made efforts to eliminate waste (waste plastic and cardboard boxes) and achieve zero emissions.
- Engaged in the large-scale cleaning of the surrounding area in cooperation with the neighborhood community association.
- Working on further reduction of environmental burdens through the use of the BEMS central monitoring system that can oversee the energy consumption of the entire site.

Fujiyama Works Kazuo Iijima

- Location : 4016 Fujiyama, Ueda-shi, Nagano
- Area : 99,828 m^2
- Number of employees : 452
- ISO certificate obtained : December 1999
- Major products : Cooling fans, UPS's (uninterruptible power supply devices), power conditioners for photovoltaic power generation systems, emergency self-power generation systems, power source monitoring systems, AC / DC servo amplifiers, stepping drivers and system controllers.



At Fujiyama Works, San Ace Company and Electronics Company conduct production activities in three buildings: F1, F2, and F3. Each company improves its own business activities to reduce environmental load and promote automation, energy savings, waste reduction, and zero emissions. In fiscal 2024, our efforts will continue toward the achievement of our environmental goals.

- Introduction of "Shinshu Green Electricity"
- Reduction in the consumption of electricity and A-type heavy oil
- Reduction in the consumption of lead by using lead-free solder
- Reduction of waste (waste plastics and cardboards) and zero emission activities
- Use of components and materials meeting the RoHS directive
- Volunteer activities for cleaning areas around the factory

Data on Air Quality, Water Quality, and Noise

Kangawa Works	Item	Regulatory standard	Voluntary standard	Actual value
Air quality Air pollution control laws and ordinances	Smoke and soot (g/m^3N)	Exempted (No water disposal tank)		
	NOx (ppm)			
	Sox (m^3N/h)			
Water quality Water pollution control laws, ordinance and agreements	Water Discharge	—	110	100.8
	PH (pH)	5.8 ~ 8.6	—	7.5
	BOD (mg/L)	20	19	11.0
	SS (mg/L)	30	28	18.0
Noise Laws, ordinances and agreements for noise regulation	(dB)	65	64	53

Fujiyama Works	Item	Regulatory standard	Voluntary standard	Actual value
Air quality Air pollution control laws and ordinances	Smoke and soot (g/m^3N)	0.3	0.03	0.0030
	NOx (ppm)	180	130	86
	Sox (m^3N/h)	5.0	2.5	0.023
Water quality Water pollution control laws, ordinance and agreements	Water Discharge	—	100	93.5
	PH (pH)	5.8 ~ 8.6	—	7.5
	BOD (mg/L)	50	48	12.0
	SS (mg/L)	60	54	16.0
Noise Laws, ordinances and agreements for noise regulation	(dB)	Exempted		

Technology Center	Item	Regulatory standard	Voluntary standard	Actual value
Air quality Air pollution control laws and ordinances	Smoke and soot (g/m^3N)	Exempted (No water disposal tank)		
	NOx (ppm)			
	Sox (m^3N/h)			
Water quality Water pollution control laws, ordinance and agreements	Water Discharge	—	57	79.8
	PH (pH)	5.8 ~ 8.6	—	7.3
	BOD (mg/L)	20	19	29.0
	SS (mg/L)	60	54	44.0
Noise Laws, ordinances and agreements for noise regulation	(dB)	Exempted		

Shioda Works	Item	Regulatory standard	Voluntary standard	Actual value
Air quality Air pollution control laws and ordinances	Smoke and soot (g/m^3N)	Disuse due to againg of equipment		
	NOx (ppm)			
	Sox (m^3N/h)			
Water quality Water pollution control laws, ordinance and agreements	PH (pH)	Exempted (No water disposal tank)		
	BOD (mg/L)			
	SS (mg/L)			
Noise Laws, ordinances and agreements for noise regulation	(dB)	65	64	54

Waste Recycling Data

Waste		Amount discharged (t)	Amount recycled (t) / Recycling rate (%)	Recycling method
Sludge	Organic sludge	8.4	8.4/100	After oil and water are separated, dehydrated residues are turned into compost.
	Inorganic sludge	13.0	12.4/95.2	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 liquid	Oil-based materials	3.9	2.9/74	After oil and water are separated, the materi al is recycled as fuel.
	Water-soluble materials	277.3	277.3/100	Reuse and incinerated residues are used as cement materials.
	(detergents, grinding liquid, etc.)	3.7	3.7/100	Distilled and used as recycled oil.
	Volatile materials	67.5	67.5/100	Crushed, sorted, and all recycled.
	Waste oil (alkali)	0.0	0.0/100	—
	Waste oil (other)	11.1	11.1/100	Crushed, sorted, and all recycled.
Waste plastics	Waste acid (batteries)	3.7	3.7/100	Crushed, sorted, and all recycled.
	OA equipment and circuit boards	55.6	55.6/100	Turned into solid fuel (refuse derived fuel), reducing agents (using furnaces), and materials for power generation (thermal recycling)
	Vinyls and films	39.3	39.3/100	
	Molding scraps	21.8	21.3/97.5	
	Other solid scraps	Other solids	Other solids	Turned into raw materials (material recycling); immersed in solvent to be turned into soil, and recycled as raw material
Metal scraps	Styrofoamrecycling	1,693.1	1,693.1/100	Recycled as metal materials
	Scraps generated in	0.1	0.1/100	
Paper scraps	manufacturing processes	11.5	11.5/100	Turned into raw materials for recycled paper
	Metals (including empty cans)	41.4	41.4/100	
	Used paper	154.0	154.0/100	
Wood scraps	Newspapers, magazines,	39.9	39.9/100	—
Glass scraps	and other papers	1.6	1.6/100	Crushed and turned into road construction materials
Ceramic scraps	Cardboards	0.0	0.0/-	Incinerated
Other waste	Packages and transportation pallets	50.6	45.0/89	—
Total		2,497.5	2,489.7/99.7	

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For inquiries about the Environmental Data Book,
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