Environmental Report 2004

FURUKAWA ELECTRIC

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For Furukawa-Sky Aluminum Corp. which commenced operations during fiscal 2004

The light metals division of The Furukawa Electric Co., Ltd. integrated with SKY Aluminum Co., Ltd. on October 1, 2003 to commence as Furukawa-Sky Aluminum Corp. and it is currently an affiliated company on consolidated account. The environmental impact from this division is extremely huge and thus the impact on data collection given by the division is significant, thus we have collected and compiled data of the division on a full year basis in order to secure continuity of data from activities of the year.

Editorial Policy

This brochure reports on the environmental preservation activities of Furukawa Electric in fiscal 2003. In addition to the articles covered last year, this report will include human resource activities for better disclosure of our initiatives in society. We also tried to make this report clearer and more reader-friendly.
In compiling this report, we made reference to Environmental Reporting Guidelines (Fiscal Year 2003 Version) published by the Ministry of the Environment as well as Sustainability Reporting Guidelines 2000 by Global Reporting Initiative.

Covered business bases

1. All the business bases of Furukawa Electric
(1) Chiba Works
(2) Nikko Works
(3) Hiratsuka Works
(4) Oyama Works
(5) Mie Works
(6) Osaka Works
(7) Fukui Works
(8) Shiga Works
(9) Kambara Works
(10) Shinagawa Works
(11) Yokohama R&D Laboratories

Sheet plant of Nikko Works, Oyama Works, Fukui Works and Shiga Works became a manufacturing base related to Furukawa-Sky Aluminum Corp. on October 1, 2003. However, in this report, we include them on a parent basis, using their former names as of April 2003.

2. Affiliated companies
Nippon Foil Mfg.
FURUKAWA AUTOMOTIVE PARTS
Riken Electric Wire and 37 other companies
(Refer to page 27 for environmental activities of affiliated companies)

Period Covered
From April 1, 2003 to March 31, 2004

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Safety, Environment & Quality Promotion Dept
The Furukawa Electric Co., Ltd.
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FAX +81-3-3286-3540

Activities of the Furukawa Electric groupworking on the realization of "sustainable society"

Furukawa Electric has proactively engaged in activities aiming to realize a sustainable society that reduces environmental impact and increases resource capabilities in order to realize a"resource-recycling society", and has continuously disclosed the outcomes of such activities to society.

We finally began seeing bright signs in the overall domestic economy as a result of the receding financial crisis and deflationary concerns in fiscal 2003. Meanwhile, although the Company's business environment has significantly improved since the year before last, IT investment in Japan and overseas has not yet smoothly expanded and thus the business situation still remains harsh. However, one of the most important assignments on the management agenda is actively striving to solve various issues related to preservation of the environment with the aim of achieving a sustainable society. This is being undertaken by Furukawa Electric's parent company, working in cooperation with all our corporate groups. In terms of concrete actions related to the environment, we specified target levels and time frames that must be achieved in each target group.

Furukawa Electric and its group are involved in a number of core businesses including Telecommunications, Plastic, Cables and Wires, Nonferrous Products, Electronics-related Products and others. We have a long time involvement in proactive recycling of copper and aluminum, and recovery and reuse of plastics, while focusing on developing environmentally friendly products.
From fiscal 2003, in particular, we developed a number of new environmentally friendly products under the name of ECOLINK, such as environmentally friendly optical cables that are halogen- and lead- free, new type of cable troughs for which disposed cables were recycled, and partial-stripe precious metals for which the use of these precious metals are minimized. We also intend, through development of sophisticated recycling technologies and environmentally friendly products, to make a contribution to preserve the global environment and conserve its resources.

For promoting the procurement of green supplies, we believe that we have also won our customers' trust by meeting their requirements for environmental investigations and plant audits. Meanwhile, we have clearly specified company-wide standards in order to purchase products for which greenness is well assured.
In fiscal 2002, we acquired ISO14001 certification, which had been an important objective in the area of environmental preservation, for 11 works, that are all production bases of Furukawa Electric. 33 out of 40 affiliated companies, which participate in consolidated environmental management, acquired certification in fiscal 2003. We will continue pursuing active programs on environmental preservation through co-sharing environmental preservation data, exchanging information regarding concrete environmental actions, and holding seminars, targeting the acquisition of ISO14001 certification by all affiliated companies.

We had promoted environment preservation activities based on each operational base in the past. However, recently we have received a variety of requests in broader areas from society, including customers and local communities. We intend to further strengthen our activities to improve these environmental issues.
Here we present a report summarizing our environmental preservation actions in fiscal 2003. It is our hope that readers will reach some understanding of the activities of Furukawa Electric and its associated group of companies and that you will pass onto us your frank opinions and suggestions.

Hiroshi Ishihara, President

Company Profile

Since its establishment more than a century ago, Furukawa Electric has kept pace with the progress in technology which has shaped the foundations of Japanese industry. Originally fostered by electric cables and non-ferrous metals, the Company's advanced technologies have steadily expanded in response to the needs of the times and still continue to challenge new possibilities with innovation and creativity.

Head Office	6-1, Marunouchi 2-Chome, Chiyoda-ku, Tokyo 100-8322 Japan
Founded	1884
Changed firm name	1920
Paid-in Capital	59.2 billion yen
Number of employees	5,777

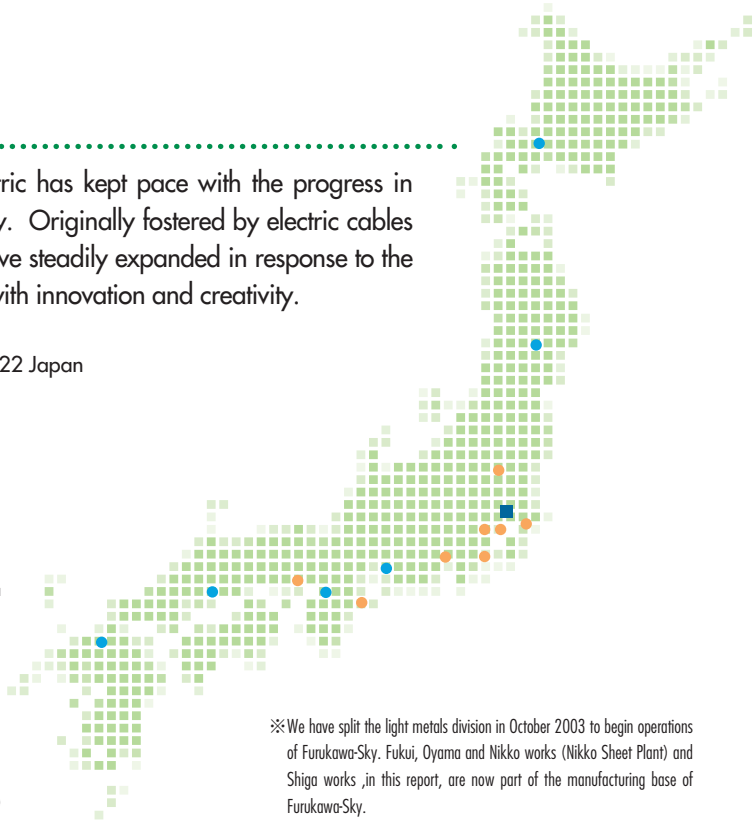
■**Head office**

●**Works** : Chiba Works, Nikko Works, Hiratsuka Works, Mie Works, Osaka Works, Kambara Works, Shinagawa Works, Yokohama R&D Laboratories

●**Sales Offices** : Kansai Branch Office, Chubu Branch Office,Kyushu Branch Office,Chugoku Branch Office,Tohoku Branch Office,Hokkaido Branch Office

●**Research Laboratories** : Yokohama R&D Laboratories, Metal Research Center, Ecology & Energy Laboratory, FITEL Network Laboratory, FITEL Photonics Laboratory, Automotive Technology Center

(As of March 31, 2004)

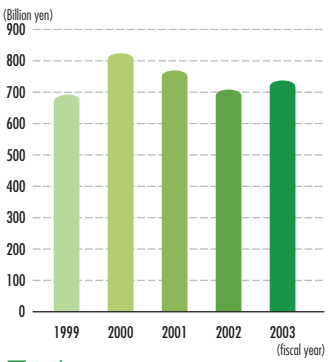


※We have split the light metals division in October 2003 to begin operations of Furukawa-Sky. Fukui, Oyama and Nikko works (Nikko Sheet Plant) and Shiga works ,in this report, are now part of the manufacturing base of Furukawa-Sky.

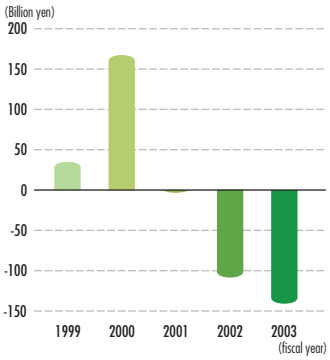
Consolidated Business Performance

Consolidated sales increased to 789,867 million yen (up 4.1% year on year) due to expansion in sales in all divisions except the Telecommunications division and the expanded scope of consolidation, as a result of enhancing group management. However we incurred net losses of 140,128 million yen due to asset disposal reduction of the US subsidiary OFS and assets disposal losses for business restructuring.

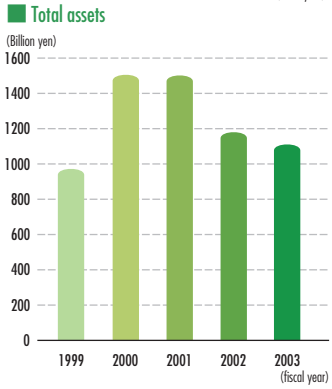
■ Total Sales



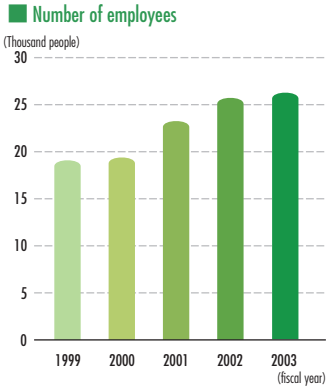
■ Net income



■ Total assets



■ Number of employees



Summary of Business

Major market products, ranging from raw materials to various systems in the four business areas supported by the advanced technology of Furukawa Electric are summarized here together with their environmental aspects.

		Telecommunications	Plastic, Cables and Wires	Nonferrous Products	Electronics-related Products and Others
Major Products		Optical fibers and cables, Optical components, Optical fiber cable accessories and installations, and Network equipment	Bare wires, Aluminum wires, Coated wire, Winding wire, Power cables, Power transmission cable accessories and installations, Plastic products such as power cable conduit material and foam sheets, and Thermoelectric products	Copper pipes and rods, Electrolytic copper foils, Shape memory alloys, Aluminum sheets, Extruded aluminum products, and Cast and forged products	Automotive components and electric wirings, Heat pipes, Aluminum circuit boards for memory discs and Electronic component materials
Sales Composition Ratio		18%	25%	37%	20%
Production Bases	Chiba	○	○	—	○
	Nikko (Kiyotaki District)	—	○	○	○
	Nikko (Sheet Plant)	—	—	○	○
	Hiratsuka	○	○	—	○
	Oyama	—	—	○	—
	Mie	○	○	○	○
	Osaka	—	—	○	○
	Fukui	—	—	○	—
	Shiga	—	—	○	—
	Kambara	—	○	—	—
	Shinagawa	○	○	—	—
	Yokohama R&D	○	—	—	○
Environmental aspects	Laboratories	—	○	○	—
	Energy conservation Global warming	—	○	○	—
	Resource saving	○	○	○	○
	Recycling	○	○	○	—
	Hazardous substance elimination	○	○	—	○

Company Policy of Furukawa Electric (group)

Basic Management Policy

- Have a high regard for our customers
- Value and bring out the best of our employees
- Proactively adopt new technologies that harness creativity

Our Vision

Pursuing technology innovation and aiming for a creative and highly profitable company with stronger global presence

Furukawa Electric Basic Environmental Policy

Basic Policy

Furukawa Electric recognizes that preservation of the global environment is a critical issue for society, and shall incorporate consideration of environmental preservation issues into every phase of corporate activity, to contribute to advancement of a sustainable, happy and prosperous society.

Action Guidelines

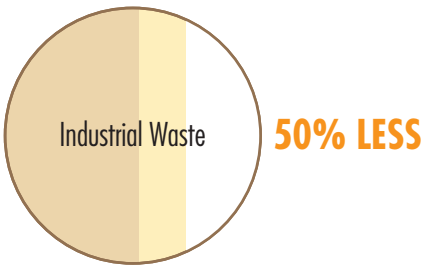
- All activities shall be based on an awareness of its effect on the global environment, and environmental preservation activities shall be pursued by all employees.
- We shall observe environmental laws and regulations and requirements from our customers, and set up voluntary standards to upgrade control levels.
- We shall define environmental targets and objectives, and carry out activities according to this plan, thereby continuously improving environmental preservation activities.
- Environmental concerns shall be taken into consideration in every phase of our work from the R&D and design stages to supply environmentally friendly products.
- In every phase of procurement, manufacturing, distribution and customer service we shall work to reduce consumption of resources and energy, to promote recycling, and to reduce waste materials and the impact on the environment.
- We shall carry out environmental audits, and review our environmental management system and environmental preservation activities for continuous improvement.
- We shall educate all employees to enhance their environmental awareness, and promote disclosure of information and social communication, thereby actively contributing to community activities.

Review of Medium-Term Plan for Environmental Preservation Activities 2005

We had previously set activity items and target standards in the Medium-Term Plan for Environmental Preservation Activities 2005. However, the impact on the environmental by Furukawa Electric group including industrial waste and emissions of chemical substances have changed accordingly with the commencement of operations of Furukawa-Sky in fiscal 2003. Viewing this as an opportunity, we have reviewed the results of our previous activities and revised the Medium-Term Plan with higher targets, for further improvement.

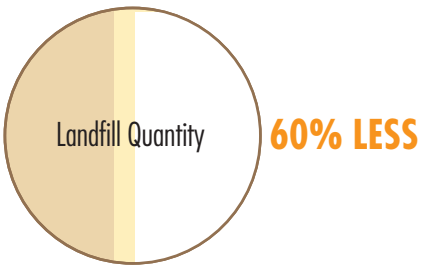
※ () are the values before the revision.

1. Reduction of Industrial Waste



Reduction of industrial waste

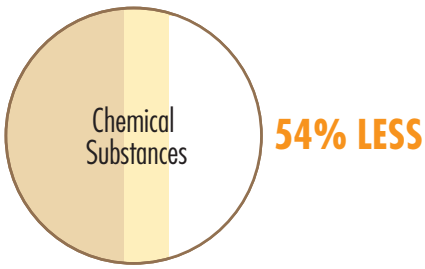
50% reduction over fiscal 2000 in fiscal 2005.
(our previous plan: 30% reduction)



Zero-emission activities

60% reduction of landfill quantity over fiscal 2000 in fiscal 2005
(our previous plan: 50% reduction)

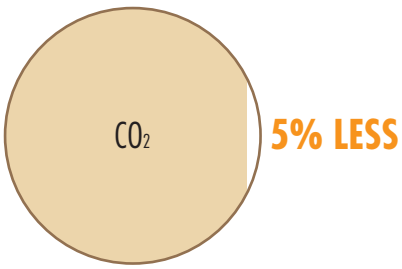
2. Effluent Reduction of Chemical Substances



Effluent reduction of chemical substances

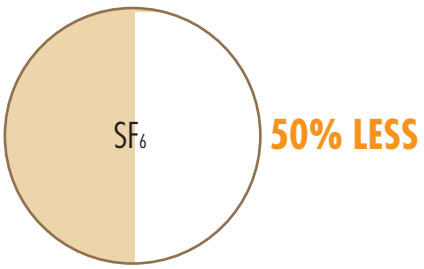
54% reduction over fiscal 2000 in fiscal 2005
Targeted substances : Toluene, Xylene, Ethylbenzene
(our previous plan: 40% reduction)

3. Reduction of Greenhouse Gases



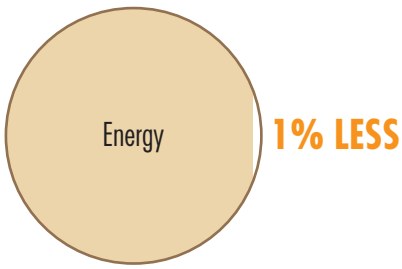
Reduction of CO_2 emission

5% reduction over fiscal 2000 in fiscal 2005



Reduction of SF_6 emission

50% reduction over fiscal 2000 in fiscal 2005



Energy conservation

1% reduction over previous year in terms of EIPUP

4. Promotion of Green Activities / Procurement of Green Supplies

Procurement ratio for 23 general supplies including stationery 100% in fiscal 2005

Achievement ratio for investigation of purchased products from major vendors 100% in fiscal 2004

5. Eco-design Activities

Development of environmentally friendly products

Evaluation of environmental impact Investigation and examination of industry trends and necessity of products by fiscal 2004

6. Reinforcement of Environmental Management Organizations

Establishment of environmental management organizations in the head and branch offices by fiscal 2005

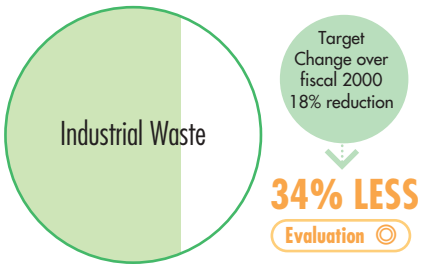
7. Promotion of Consolidated Environmental Management

Promotion of environmental activities in affiliated companies.

Performance in Fiscal 2003 and Targets in Fiscal 2004

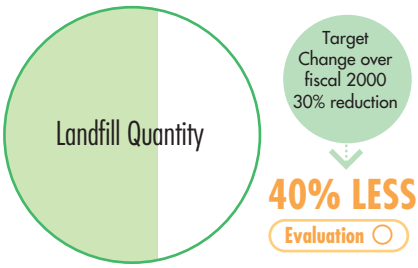
Targets and achievement report for the Medium-Term Plan for Environmental Preservation Activities in fiscal 2003 are shown as follows.

Priority Environmental Preservation Activity Targets and Performance in Fiscal 2003



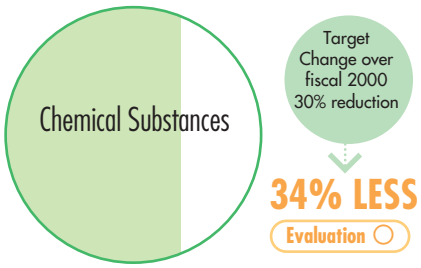
Reduction of industrial waste P 8

34% reduction over fiscal 2000



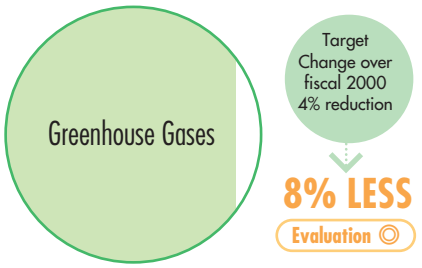
Zero-emission activities P 8

40% reduction of landfill quantity over fiscal 2000



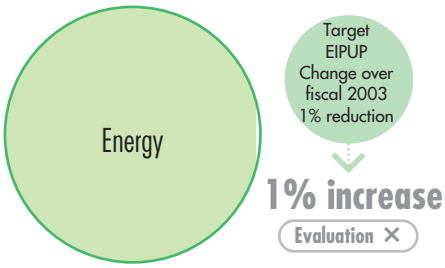
Effluent reduction of chemical substances P 9

34% reduction over fiscal 2000



Reduction of greenhouse gases P10

8% reduction over fiscal 2000



Promotion of energy-conservation activities

1% increase over the previous year in EIPUP P10

Evaluation standards

- ◎ : Achieved beyond target
- ○ : Achieved
- △ : Slightly under-achieved
- × : Considerably under-achieved

Promotion of procuring green products and supplies

Target	Performance	Evaluation
• Designing evaluation measures • Establishing a system for procuring green products and supplies • Enhancing response to customers	• Set standards and revised regulations and rules • Established a system for procuring green products and supplies • Already responded to customers	○ ○ ○

Promotion of consolidated pro-environmental management

Target	Performance	Evaluation
• Establishment of promotion framework	• Co-sharing of information and promotion of education	○

Eco-design activities

Target	Performance	Evaluation
• Development of environmentally friendly products • Investigation of LCA case examples	• Attained 39% new product sales ratio • Completed investigation of industry cases and existing LCA tolls	○ △

Reinforcement of environmental management organizations

Target	Performance	Evaluation
• Establishment of environmental management organizations	• Promotion of environmental education for management	○

Priority Environmental Preservation Activity Targets for Fiscal 2004

The table here shows activity items and targets for fiscal 2004 of the revised Medium-Term Plan for Environment Preservation Activities 2005. Individual business bases will adopt these targets into their environmental management activities and plan to promote their own activities.

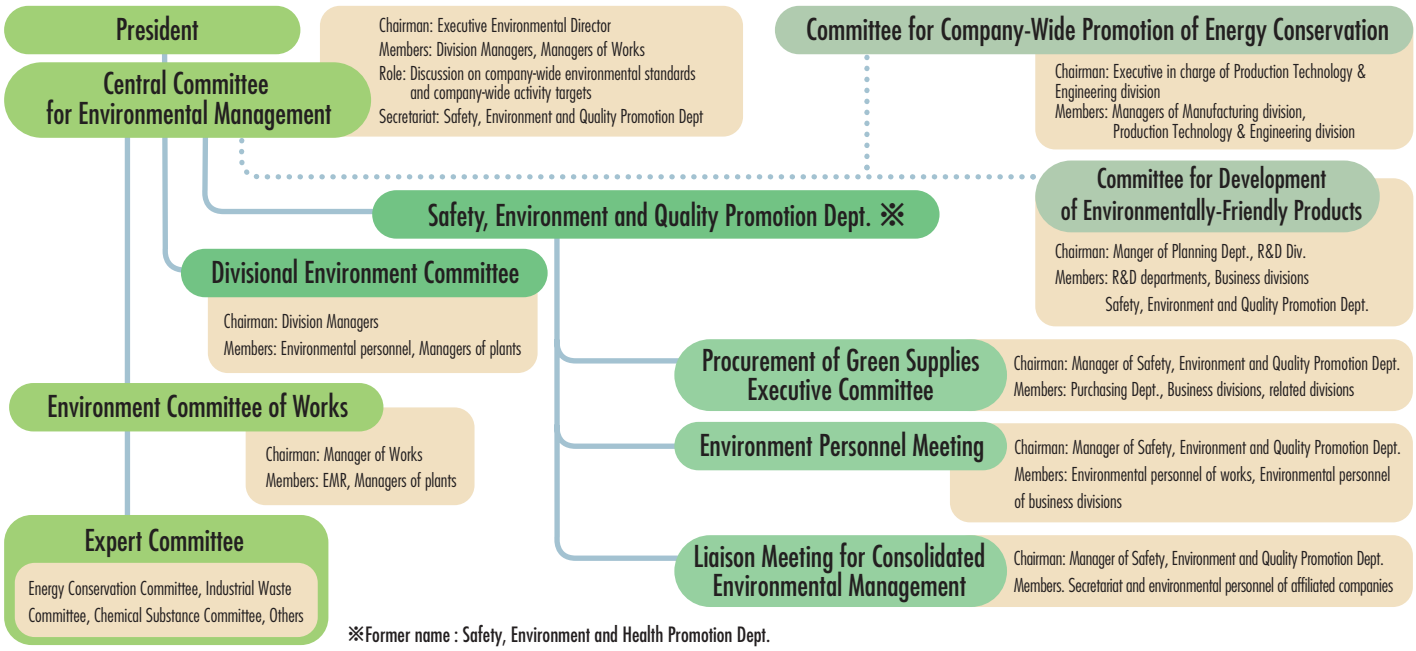
Priority Environmental Preservation Activity targets for fiscal 2004

- **Reduction of industrial waste**
  40% reduction over fiscal 2000
- **Zero-emission activities**
  50% reduction over fiscal 2000
- **Promotion of procuring green products**
  Promotion of procuring of 23 general commodity items including stationery
  Attained 100% of investigation on purchased products from major vendors in fiscal 2004
- **Reduction of greenhouse gases**
  Greenhouse gases emission: Attained the same performance as the previous year
- **Energy-conservation activities**
  EIPUP : 1% reduction over the previous year
- **Effluent reduction of chemical substances**
  52% reduction over fiscal 2000
- **Reinforcement of consolidated environmental management**
  Formulating and activating policies for group activities
- **Eco-design activities**
  Development of models towards introduction of LCA

Environmental Management Activities

Organization Chart for Company-Wide Environmental Management

The Chart here shows the environmental management organization of the company. Central Committee for Environmental Management, in which the Director in charge of the environment comes in as Chairman, has been set up to carry out environmental management under direct control of the President, thereby promoting environmental preservation activities of the entire company.



※Former name : Safety, Environment and Health Promotion Dept.

ISO14001 Certification

Considering that ISO14001 would be a very effective scheme for environmental preservation, we have been pursuing certification acquisition since fiscal 1998, and all the Works achieved this goal in fiscal 2002. Hereafter, we will proceed to improve our environmental performance. Moreover, we will support the environmental management of affiliated companies, thus promoting preservation of the global environment from the standpoint of consolidated environmental management.

Works	Date of Acquisition	Certifying Organization	Certification Number
Chiba	June 18, 1998	DNV	EMSC-1208
Mie	November 24, 1998	JACO	EC98J1097
Hiratsuka	September 1, 2000	DNV	EMSC-1699
Osaka	December 19, 2000	DNV	EMSC-1114
Kambara	December 25, 2000	JSA	JSAE315
Shinagawa	November 2, 2001	DNV	00372-2001-AE-KOB-RvA
Nikko (Kiyotaki District)	March 14, 2002	DNV	1851-2002-AE-KOB-RvA/JAB
Fukui	April 19, 2002	DNV	00484-2002-AE-KOB-RvA
Yokohama R&D Laboratories	June 14, 2002	DNV	1849-2002-AE-KOB-RvA
Oyama Shiga	September 27, 2002	DNV	00583-2002-AE-KOB-RvA
Nikko (Sheet Plant)	March 14, 2003	DNV	Expansion of Nikko Works

Education and Training

❶ Education of Internal Auditor

Educational courses for internal auditors were given in June and August and we trained a total of 40, 23 and 17 employees of Furukawa Electric and affiliated companies, respectively.

❷ Skill Upgrade Seminar for Internal Auditor

We invited lecturers from outside and held a two-day skill-upgrade seminar for Internal Auditor to operate environmental management system more effectively in March. 17 staff from our facilities attended the seminar to enhance their skill.

❸ Environmental Education

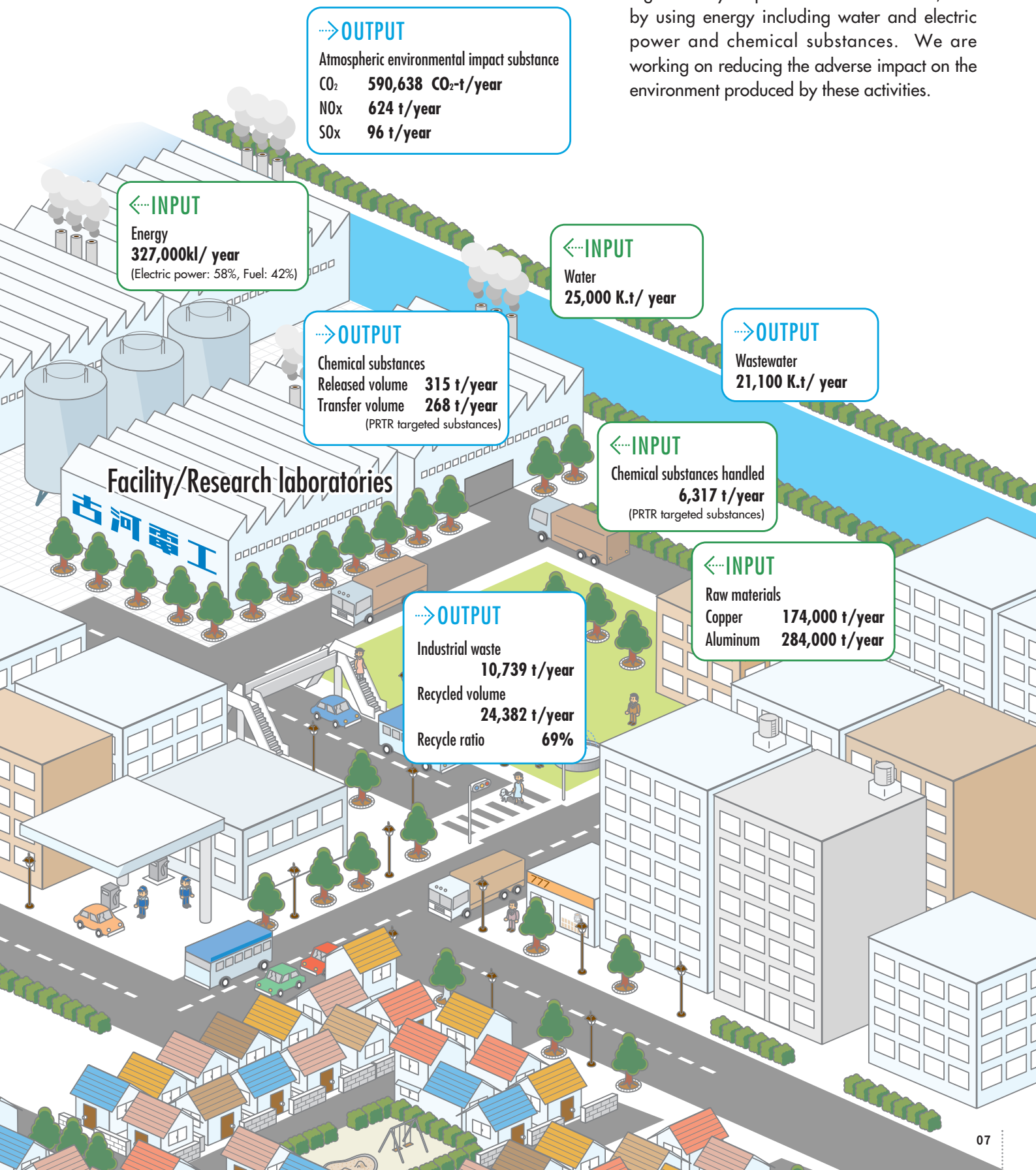
Company-wide education was given to 30 new recruits in April, to 41 second-year administrative employees in June and to a total of 122 second year technical employees over three sessions from October to December. In addition, general and special environmental education was provided for all employees at their works and worksites.

❹ Educational Support for Affiliated Companies

Education of ISO standards, environment related registration and others was provided to 57 management level employees of affiliated companies in August and November. The request for management education was made by affiliated companies.

Impact on the Environment by Furukawa Electric

Furukawa Electric provides products by procuring a variety of parts and raw materials, and by using energy including water and electric power and chemical substances. We are working on reducing the adverse impact on the environment produced by these activities.

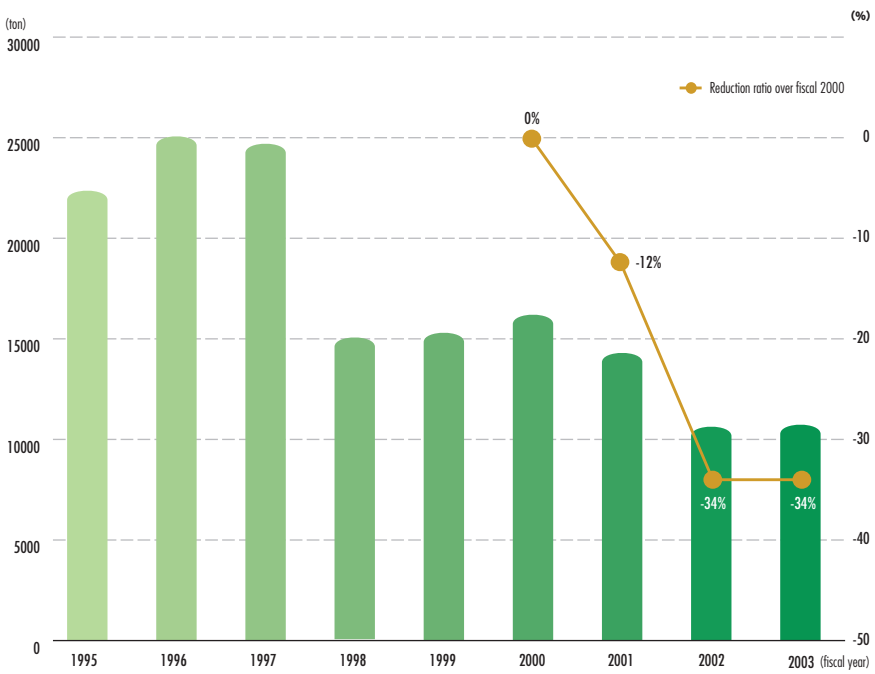


Reduction of Industrial Waste and Zero-Emission Activities

Reduction Activities of Industrial Waste

We began activities to reduce outsourced industrial waste disposal in 1993. Since then we have been continuously pursuing reduction activities, and consequently made great progress in recycling and reduction of oil, plastic and alkali wastes, sludge, wood and paper waste, and reduced outsorced industrial waste disposal.
In addition, we set up a medium term target of "reducing industrial waste by 30% over fiscal 2000 in fiscal 2005" in fiscal 2002. Based on this target, plants, which are maufacturing bases, established their environmental purpose and target, and are pursuing these activities.
We have already attained our target of reduction of outsourced industrial waste disposal by 34% over fiscal 2000 in fiscal 2003. This was partly affected by a slowdown in operations due to the sluggish economy. We will continue reducing waste in the process of manufacturing and recycling, ensuring that outsourced industrial waste disposal volume exceeds the target, even after the recovery of operations.

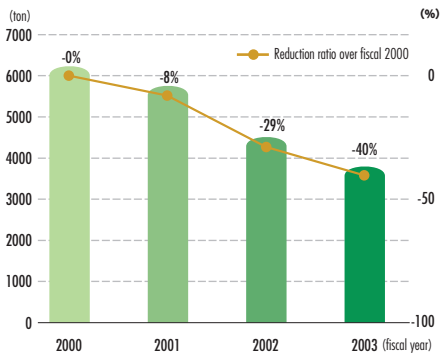
Changes in Disposal of Outsourced Industrial Waste



Zero-Emission Activities

In fiscal 2001, as the first-step of zero-emission activities, Furukawa Electric formulated the definition of zero-emission activities, and established reduction targets for each plant, as well as the entire company.
In fiscal 2002, while all the plants have acquired ISO14001 certification, they incorporate zero-emission activities into the targets of their environmental management systems. As a result of promotion of zero-emission activities, we have successfully reduced industrial waste by 40% over fiscal 2000, in fiscal 2003. We intend to develop this across the board, using the Chiba plant as a role model for the rest of the company,as its zero-emission activities are the most advanced, in order to further pursue zero-emission activities.

Changes in Direct Landfill Disposal Volume



Definition of Zero-Emission Activities of Furukawa Electric

Activities to reduce the industrial waste commissioned to outsourced disposition that is transported from plants directly into landfill spots for final disposition.

First-Step Target of Zero-Emission Activities

To reduce by fiscal 2005 the volume of industrial waste that is outsourced for final disposition by 50% over fiscal 2000.

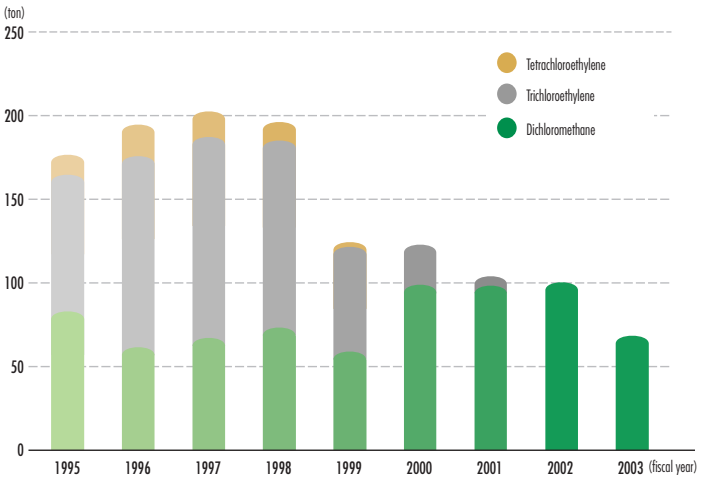
Reduction of Organic Chlorine Compounds and Reduction of Chemical Substances

Reduction of Organic Chlorine Compounds

In an effort to reduce the use of organic chlorine compounds, we, along with the company's environmental principle and customers' green procurement requirement, have been developing pollution-free cleansing techniques that are consistent with required product quality. At the initial stage, we planned, in fiscal 2002, to completely eliminate atmospheric emission of organic chlorine compounds.

Tetrachloroethylene and trichloroethylene were completely eliminated in fiscal 2002 as planned. Although dichloromethane was still used at two works at the beginning of fiscal 2003, we eliminated it at one of the works in the first half of fiscal 2003 and at two out of three facilities of the other works within the closing of fiscal 2003. However, dichloromethane was still used at one facility for cleansing products with special shapes and we have delayed complete elimination partly because of the customers' strict requirement of production operations. We have postponed our elimination plan to fiscal 2004 and plan to apply the acquired cleansing technologies, thereby achieving complete elimination of organic chlorine compounds.

■ Atmospheric Emission of Organic Chlorides



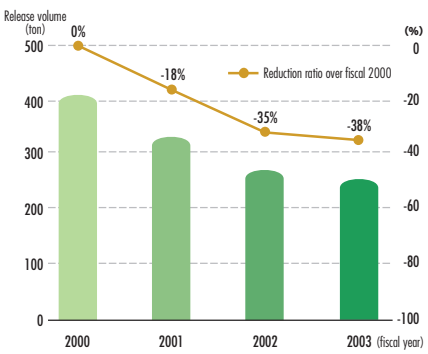
Reduction of Chemical Substances

In addtion to reducing organic chlorine compounds, we have long been pursuing activities to reduce use and emission of ozone layer depletion substances. We have greatly succeeded in reduction of these substances.

In fiscal 2003, we planned to reduce additional chemical substances, focusing on PRTR※ targeted substances with large emission volume. We have set a target of reducing four substances such as toluene, xylene, ethylbenzene and trimethylbenzene by 40% over fiscal 2000 in fiscal 2005 in the Medium-Term Plan for Environmental Preservation Activities, and pursuing reduction by shifting to water based paints, recovering volatile solvents and disposal by incineration. From fiscal 2004, we have again revised our target to 54% reduction, due to changes in operations deriving from the move of part of the wrought copper division to China.

※ : Pollutant Release and Transfer Law in Japan.

■ Changes in Released Volume of Chemical Substances



Substances targeted for reduction

Four substances such as toluene, xylene, ethylbenzene and trimethylbenzene

■ Handling, Release and Transfer Volume of PRTR Targeted Substances

(ton/year)

Substance No.	Name of substance	Handling volume	Release volume	Transfer volume	Neutralized Volume
25	Antimony and its compounds	191.7	0.0	3.6	0.0
40	Ethylbenzene	8.0	7.2	0.1	0.4
63	Xylene	362.3	22.4	8.8	202.8
67	Cresol	321.0	0.9	1.1	319.0
68	Chromium and trivalent chromium compounds	72.7	0.0	6.7	0.0
69	Hexavalent chromium compounds	6.7	0.0	0.0	0.0
108	Inorganic cyanide compounds	5.5	0.0	0.0	5.5
145	Dichloromethane	77.8	64.3	13.5	0.0
172	N,N-dimethyl formamide	69.3	0.7	0.2	68.5
197	Decabormo-diphenylether	143.9	0.0	10.1	0.0
224	Trimethylbenzene	21.9	19.1	1.1	0.2
227	Toluene	591.1	199.3	205.5	66.5
230	Lead and its compounds	3,166.9	0.0	0.0	0.0
231	Nickel	9.6	0.0	0.0	0.0
232	Nickel compounds	5.5	0.0	0.1	0.0
253	Hydrazine	15.7	0.0	0.0	15.7
266	Phenol	193.2	0.4	0.3	192.5
272	Bis (2-ethylhexyl) phthalate	11.9	0.0	0.0	0.0
283	Hydrogen fluoride and its water-soluble salts	16.4	0.1	13.1	2.2
308	Polyoxyethylene-octylphenylether	1.6	0.0	1.6	0.0
311	Manganese and its compounds	1,116.7	0.0	1.4	0.0
312	Phthalic anhydride	3.8	0.0	0.0	3.4

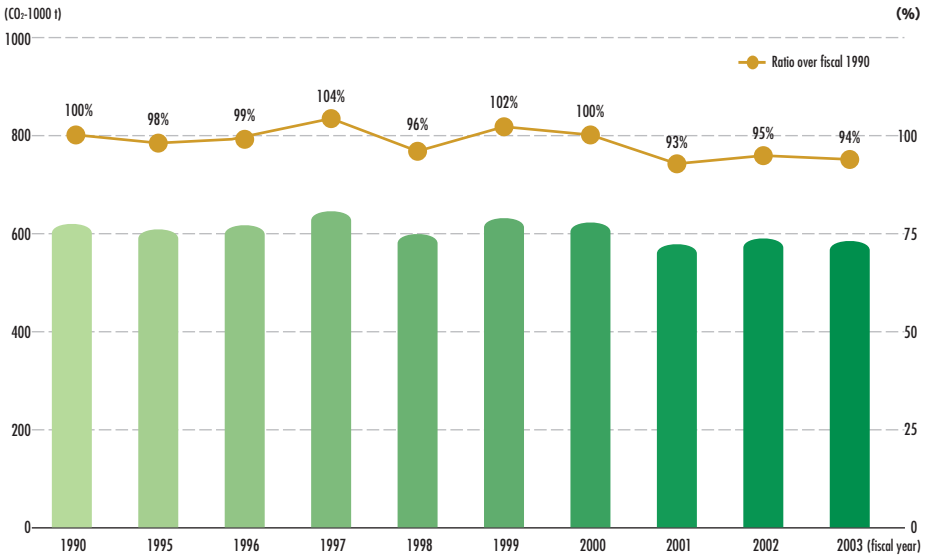
※Targeting substances of handling volume of above 1 ton at plants (more than 0.5 ton for specific substances)

Prevention of Global Warming and Energy Conservat

Prevention of Global Warming

In response to the ratification of the Kyoto Protocol by the Japanese Government in June 2002, Furukawa Electric has established medium to long term targets for reduction of greenhouse gases, which has been authorized by the Central Committee for Environmental Management. Based on these medium to long term reduction targets, each business division has developed its own specific reduction plan after fiscal 2003, and begun reduction activities. The graphs here show changes in the emission of greenhouse gases (CO_2 basis) after fiscal 1990, indicating that the emission in fiscal 2003 was 94% over fiscal 1990. Emission volume after fiscal 2000 reduced due to declines in production volume. We will further strengthen our activities whereby emission is reduced even upon recovery of production volume.

Changes in Emission of Greenhouse Gases



Energy Conservation Activities

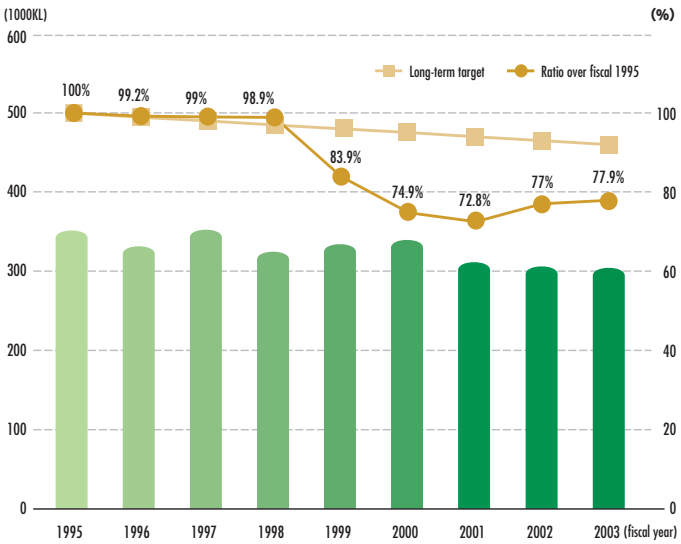
❶ Progress of Energy Conservation Activities, Organization and Targets

In view of the revision of the Law Concerning the Rational Use of Energy (Energy Conservation Law) in 1993, a Committee for Company Wide Promotion of Energy Conservation was established in April 1994, thus initiating company-wide activities with the participation of all works, including those that are not designated as an "Energy Management Factory". In 1997 the company wide energy conservation index was changed to energy intensity per unit product (EIPUP) specified in the Energy Conservation Law, and the target was set to "1% reduction over the previous year in terms of EIPUP".

In fiscal 2003, the production volume of two of the eight works that are designated as "Class 1 Energy Management Factories" fell to a range from 74 to 91% total production,and the resulting EIPUP index registered levels between 4.6 and 17.2% .

For Energy Conservation, we improved EIPUP, focusing on "enhancing efficiency" and "reducing waste". In spite of the activities, the weighted EIPUP average of the eight works worsened by 1.2% over fiscal 2002. This value corresponds to 77.9% over fiscal 1995 in terms of the previous index, representing a 2.7% improvement in yearly average.

Changes in EIPUPs of Eight Works



❷ Case Examples of Energy Conservation Activities in Fiscal 2003

Major items of energy conservation include: regenerative burner of melting furnace, inverter control of cooling water pumps, dispersion of boilers, conservation oriented operation of air conditioners, energy saving of lighting, improvement in gas emission of scrubber, suspension of use or sealing of facilities, and improvement in yield. These measures resulted in energy conservation (crude oil basis) of 5,310kl/year.

❸ Energy Conservation Activities in the Future

We will promote various energy conservation activities including development of management standards that are in compliance with the Energy Conservation Law, thereby striving to reduce the EIPUP by 1% or more on average annually.

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Prevention of Global Warming and Energy Conservation - Case Examples

Environmental Improvement and Energy Conservation Through Changing Fuels to LNG in the Nikko Sheet Plant

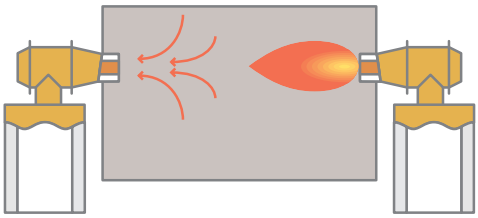
Nikko Works (Sheet Plant) has long used grade C crude oil as fuel for the casting process and treated SOx in emission gases by smoke-extraction desulphurization equipment. The equipment has deteriorated significantly as a result of use over the long period and is in need of renewal. Meanwhile, we have received complaints from neighboring residents about odor, smoke and soot deriving from extracted smoke from the equipment.
Therefore, rather than simply renewing the equipment, upon discussion, we have decided to carry out measures which meet the following conditions in order to solve the problem fundamentally.

❶ Emit clean gases to meet environmental conditions

❷ Control CO_2 emission and reduce running costs through energy saving.

❸ Implement measures with minimum CAPEX

Consequently, we have decided to adopt LNG as fuel, which is pollution-free and is significantly effective in CO_2 reduction, and regenerative as a burner for incineration, which is more effective for energy saving.
Construction for replacing fuel and incineration equipment commenced in fiscal 2003 and is scheduled to be completed in fiscal 2005.



Regenerative burner

Smoke-extraction desulphurization equipment

Affiliating Hydraulic Power Generation Station in the Nikko District

Furukawa Nikko Power Generation Inc. is a hydraulic power generation company that previously belonged to Furukawa Co., Ltd. one of Furukawa group companies but was transferred to be an affiliated company of Furukawa Electric in September 2003.
Construction of the power station began in 1906, and the station provided electricity to Nikko works (Kiyotaki District) and Ashio District that had the Ashio copper mine, contributing to development of the region. With transfer of the business to Furukawa Electric, the station now also supplies power to the Nikko Works(Sheet Plant).

Furukawa Nikko Power Generation Inc. maintains four hydraulic power stations that use natural water falls including Kegon-no-taki water fall that runs down from Lake Chuzenji and other surrounding water falls as water supply sources. By utilizing this feature, there is no concern of water volume fluctuation, thus enabling efficient and stable power generation. The four power stations are located from upstream to downstream in sequence, using the water supply efficiently.
The stations that generate power using natural forces, do not emit any greenhouse gases. Furukawa Electric intends to make the most of clean energy resources and maintain power generating facilities located in the national park without harming the environment.

Green Activities and Green Logistics

We are pursuing environmental preservation activities by promoting "green procurement" in which we purchase environmentlly friendly parts and materials together with the cooperation of customers.

Green Activities

Furukawa Electric has been promoting green procurement since enforcement of the Green Purchasing Law in April 2001. From August 2002, customer's demands to cooperate on green procurement suddenly increased. Therefore, we took a position to respond to the customer's demands on product inspections and internal audits as the most important objective.

Responding to Customers' Demands for Green Activities

It has become clearer that Japanese customers require us to correspond with the EU regulations which enforce total exclusion of toxic substances in products. As Furukawa Electric provides a wide range of parts and materials used in a variety of industries, it has not been so easy to have a comprehensive labeling of product greenness, in regard to substances that have an adverse impact on the environment (such as toxic chemical substances), so that we had initially responded to customer's demands individually.

Since fiscal 2003, we have developed a company wide environmental information management system in order to respond to customers across the board comprehensively. Divisions of the entire company such as materials procurement, manufacturing and marketing divisions promote activities and expand the range of activities beyond the company, to customers and suppliers. The environmental Promotion division of Furukawa Electric responded to customers who are related to several business divisions and bases. The following are case examples of responses to customers on green activities in fiscal 2003 .

1. For Fujitsu, 8 divisions made an agreement on submission of a Non-Inclusion Guarantee Statement corresponding to the EU regulations and promotion in activities for total elimination of hazardous chemical substances.
2. For Sony, corresponding to Sony Green Partner Environmental Quality Approval, an environmental audit was carried out in 10 plants and 2 affiliated companies of the 7 divisions which supply products to Sony, and an agreement was concluded.
3. We have responded to many customer's demands on green procurement inspections.

Yokohama R&D Laboratories Analysis Technology Center

Analysis technology center supports the business activities of Furukawa Electric group with evaluation technologies. The center has a long history and has high analysis technologies fostered through tireless efforts for improving them. The center evaluates even the smallest amount of contamination of environmental impact substances in the Furukawa Electric products precisely. It also applies the analysis technology for developing environmentally friendly products.

Green procurement / development of ECO products ⇔ Development evaluation method

- Designing products using substitute environmentally friendly substances
- Complying environment usage with required specifications
- Certifying non-inclusion of hazardous chemicals in ECO products

We are examining prior processing methods to determine the most suitable method for each specimen in order to quantify data precisely.

Promotion of Green Activities

1 Promotion of green procurement for "general commodities"

In the category of "general commodities" of non-manufacturing-oriented materials such as office supplies, in order to utilize a new purchasing system aiming for efficient procurement, we have registered products that meet green procurement requirements in the master database system.

2 Promotion of green procurement for "purchased products"

In the category of "purchased products" which are used as materials in the process of manufacturing products, we have developed regulations and guidelines to evaluate commodities. We have also established a support system for environmental investigation on green procurement. Through these actions, we could standardize investigation and compile a database, realizing unbiased and efficient inspection.

Green Logistcs

We are also pursuing rationalization of logistics while securing reduction of environmental impact and energy conservation.

Reduction of Packaging Material

We reduce the use of packaging paper and wood by promoting package-free of drum-wound products and bundled products.

Promotion of Reusable Drum Program

TEPCO LOGISTICS Co., LTD., an affiliated company of Tokyo Electric Power Company (TEPCO) has established an environment-conscious recycling system for drums used in the delivery of aerial power distribution wire and cable. In this system, conventional wooden drums are replaced by plastic drums made of recycled sheathing material of retrieved wire. We support their rental business of reused drums that comprises the recycling system, in terms of developing the recycled material, as well as operational aspects including manufacture, delivery, retrieval, repair and maintenance of drums.

Recycling of Disposed Drums

680 tons of retrieved wooden drums and skids in the distribution centers are disposed without being reused. We have realized 99.85% recycling of such unused materials, by producing fuel-use wood chips and bedding materials for cattle, we are aiming for effective utilization of limited resources.

Shared Transportation and Delivery

We have participated in the project introduced by the Japanese Electric Wire & Cable Makers' association (JCMA) to support environmental preservation. We have participated in a joint transportation (delivery) program of cable to large scale construction sites in the metropolitan areas, aiming to reduce the number of delivery vehicles. We also participate in the joint transportation program using ships directed to Hokkaido, thus being engaged in contributing to a modal shift to coastal shipping transportation, as well as energy conservation.

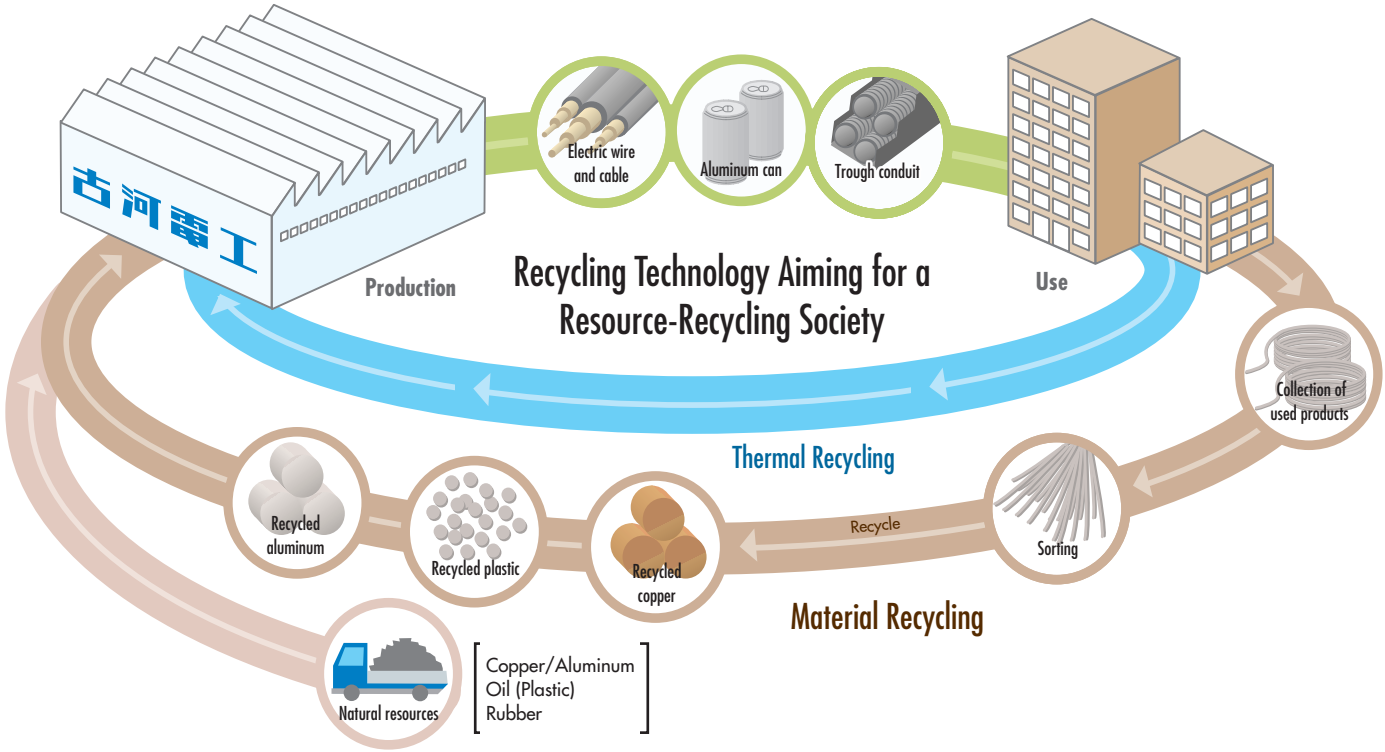
Reduction in NOx Emission Through Improvement of Loading Efficiency

In order to improve loading efficiency, we have promoted reducing the number of delivery vehicles, by expanding mixed loading and the use of large-sized vehicles, achieving 4% reduction in NOx emission volume related to product delivery vehicles in the first half of fiscal 2001. Our target is 6% reduction in NOx emission in fiscal 2004.

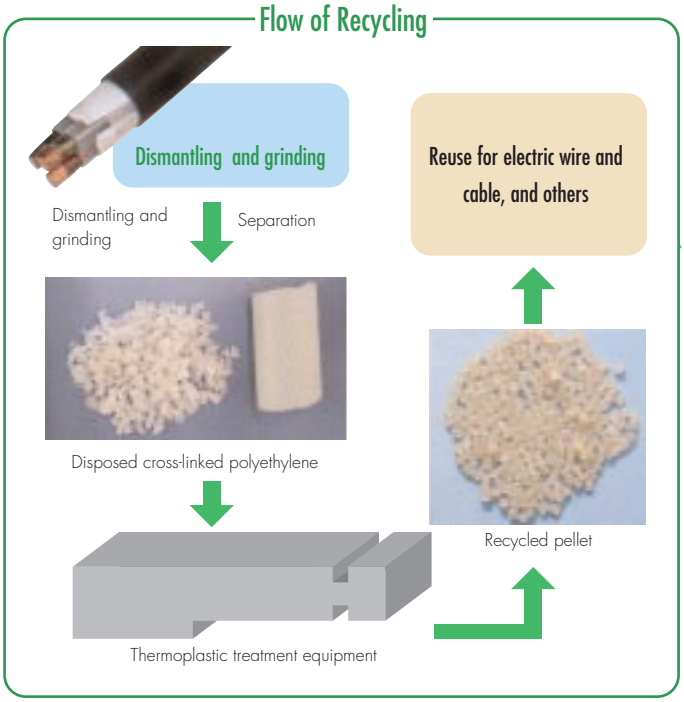
Eco-Design Activities

Recycling Technologies

In the material recycling area, we are not only developing various recycling technologies but also developing and commercializing products using disposed plastics, aiming at recycling of disposed plastics using our technologies built up through the development of polymer products.



Flow of Recycling



❶ Recycling System for Electric Wires and Cables

We established a recycling system in which used power and communication cables are retrieved from customers and almost 100% of copper and aluminum used in cables is recycled. Covering materials are also recycled as cables, recycled plastics or fuel.

❷ National Project for Development of Recycling Technology

Material recycling technology of cross-linked polyethylene was put to practical use under the support of the New Energy and Industrial Technology Development Organization (NEDO).
It has been difficult to recycle cross-linked polyethylene but we developed the recycling technology in which cross-linked polyethylene is plasticized with the appropriate thermal treatment and shearing. It is then reused for electric wire insular as recycled pellets using a similar molding process as polyethylene before the cross-linkage.

❸ LCA Assessment

Furukawa Electric implements life cycle assessment (LCA) for electric wires and cables, and metal materials and in the future will also implement LCA for other products.

Environmentally Friendly Products

Furukawa Electric recognizes that "the 21st century is the century of the environment" and is actively working on development of environmentally friendly products and technologies by consultation and collaboration with customers.
We develop a range of commercially viable products under the name of "environmentally friendly products (environmental logo: ECOLINK)" that, at every stage, from materials selection, manufacture, use, distribution and disposal, will be safe and of low environmental impact.
In addition, we have established a company-wide organization, Committee for Development of Environmentally Friendly Products, in which company-wide strategies are formulated to promote the development of products and technologies.

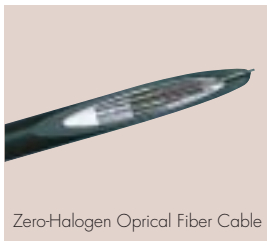
1 Products for Reduction of Environmental Impact

We are developing and commercializing products that do not create environmental problems when they are in use and do not discharge any toxic by-products or leave residual waste products during biodegradation, incineration treatment or landfill disposal after they are discarded.

Product	Use	Feature
●ECO Electrical Wire (ECO-ACE.ECOBEAMEX)	Home appliances, Power distribution and Communication	Halogen-free, lead-free
●Halogen-free Wire Harness	Automobile	Halogen-free, lead-free
●Zero-Halogen Optical Fiber Cable	Communication	Halogen-free, lead-free
●Lead-Free Plating for Electronic Components	Electronic components	Lead-free
●Biodegradable Resin Foam (BIO ACE)	Packaging material	Biodegradability
●Indoor Cable-Protection Conduit Made of Flame-Retardant Resin (ECO-PLAFLEKY)	Indoor electrical wire laying	Halogen-free, lead-free

ECO Electrical Wire

These wires and cables do not use any toxic substances such as PVC or lead, permitting recycling and disposal by incineration. ECO ACE, general cables for indoor electricity supply, ECO-BEAMX, wires for electronics and electric equipment, ECO wires for automobiles and highly flame retardant optical cables are already in practical use.


Zero-Halogen Oprical Fiber Cable


Halogen Free Wire Harness


ECOBEAMEX

Lead-Free Plating for Electronic Components

We have eliminated the use of lead by shifting from Sn-Pb plating, which was used as electrode-use solder for ICs, capacitors, connectors, printed circuit boards, etc., to Sn-Bi plating.
We promote measures to eliminate the use of lead from customers' mounting processes.

Biodegradable Resin Foam (BIO ACE)

BIO ACE is broken down into water and CO_2 by the action of microorganisms in the environment. CO_2, an environmentally friendly substance, is used as a foaming agent and the product is lightweight, has excellent machinability and buffering feature (foam expansion ratio: 10-15X). Combustion heat of BIO ACE is only half of that of polyethylene and thus less damaging during incineration.

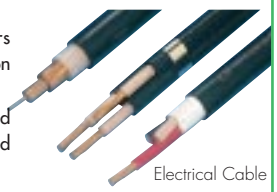
2 Products for Realization of Recycle-Oriented Society

We are developing and commercializing recycling-conscious products which, reuse industrial waste materials, use recyclable materials, reduce the variety of materials, reduce the number of parts and are easily degradable.

Product	Use	Feature
●Insulated Wire and Cable Using Recycled PVC	Electrical wire	Recycling
●Recycled Aluminum Can Stock	Can	Recycling
●Underground Cable Duct Made of Cable Waste (KOHTA KUN.KOICHI KUN.Green Trough)	Electrical wire Laying	Reuse of materials/Lightweight
●Protective Casing Using Recycled Plastics		
●Weed Barrier Sheet	Sheet	Reuse of materials

Insulated Wire and Cable Using Recycled PVC

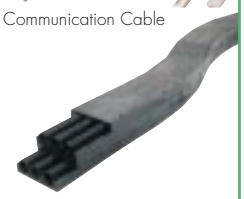
Most of the copper and aluminum conductors used for electric power cables and communication cables are retrieved and recycled.
Plastic insulators such as polyvinylchloride and polyethylene resin are also recycled as insulated electrical wire and cable sheath.
We are seeking to use recycled cross-linked polyethylene, which was previously disposed of only by incineration.


Electrical Cable


Communication Cable

KOHTA KUN

KOHTA KUN is a synthetic resin cable duct with multiple bores that use recycled plastics. The product is light in weight and high in strength, most suitable for underground laying. This product contributes to energy conservation during construction and shortens construction periods. The product acquired the ECO certification mark.



Green Trough

The product is made of plastic waste from electrical wires and cables with reinforcing materials. Compared to conventional concrete troughs, this product has higher strength and lighter weight (around a quarter of the weight of a conventional trough), permitting easy transportation and construction.


Examples where green trough is used as railway cable trough

Protective Casing Using Recycled Plastics

This is the product developed in cooperation with NTT, in which retrieved optical cables are recycled. The product contributes to energy saving for construction of shared trenches of electrical wires.

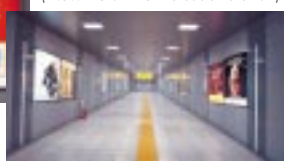
3 Products for Prevention of Global Warming

We are developing and commercializing products that contribute to energy conservation such as products of lightweight and higher energy-efficiency, and products and systems in which clean energy is commercially viable.

Product	Use	Feature
●High-Reflectivity Foamed sheet (MCPET)	Lighting	Energy saving
●Rainwater Recycling System (HYDROSTAFF)	Rainwater recycling	Resource saving
●Micro Heat Pipe	Electronic equipment	Energy conservation
●Solar Photovoltaic System	Electrical power	Clean energy
●Partial-stripe Precious Metal for Electric Components	Electronic components	Resource and energy saving
●Aluminum alloys for Vehicles	Automobiles	Lightweight and energy saving

High-Reflectivity Foamed sheet (MCPET)

MCPET has excellent light reflectivity resulting in extremely bright sheet surface. this product has a total reflection rate of 99%, diffused reflection rate of 96% and reflects light with uniform optical wavelengths. It is effective to enhance brightness or conserve energy and provides a solution to unbalanced brightness.



Construction site of the passage-way to Tokyo Opera City (New Keio Line Hatsudai Station)

Rainwater Recycling System (HYDROSTAFF)

The system aims at making effective use of sunshine and rainwater, which are gifts of nature. It serves to provide an emergency reservoir against disasters and to suppress rainwater flooding in watershed areas.

Micro Heat Pipe

Furukawa Electric's micro heat pipe is a heat dissipation/cooling device for electronic equipment such as computers. This helps reduce the size of equipment and saves energy.

Partial-stripe Precious Metal for Electric Components

Precious metal plating strips with high connection reliability are used for electrical contact materials or connectors.
Furukawa Electric manufactures and sells precious metal stripe plating strips that reduce use of precious metals, keeping in mind the impact on the environment.

4 Products for Prevention of Ozone Layer Depletion

We develop and commercialize devices and processes that do not use CFCs, together with products compatible with CFC substitutes.

Product	Use	Feature
●CFC-Substitutes Compatible Magnet Wire (HPWR Ⅱ)	Home appliances, automobiles	Compatibility with CFC substitutes
●Copper Tube for Use with CFC-Substitutes (Furukawa Multi-Grooved Tube (FMGT), Furukawa Super Clean Tube)	Home appliances	Compatibility with CFC substitutes
●Nitrogen-Atmosphere Reflow Oven (SALAMANDER)	Electronic equipment	Elimination of CFCs
●Functional Resin-Coated Aluminum sheets (FUSCOAT)	Electronic equipment	High lubrication, elimination of cleansing

CFC-Substitutes Compatible Magnet Wire (HPWR Ⅱ)

These heat- and freeze-resistant magnet wires are compatible for use with refrigerating systems using CFC-substitute refrigerants (HFC-R407C, R410A and R134a). They are used for the compressor motors of air-conditioning and refrigerating systems.

Copper Tube for Use with CFC-Substitutes (Furukawa Multi-Grooved Tube (FMGT), Furukawa Super Clean Tube)

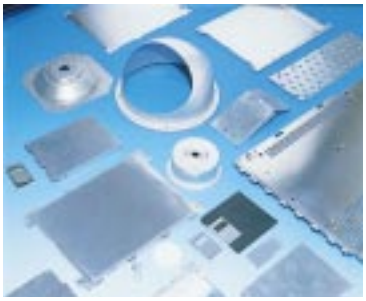
These are copper tubes compatible with CFC-substitute refrigerants to reduce the depletion of the ozone layer. These tubes reduced oil residuals in the tube's inner surface and have internal grooves to improve heat exchange performance.

Nitrogen-Atmosphere Reflow Oven (SALAMANDER)

This reflow oven carries out the reflow soldering process during the mounting of electronic components in a nitrogen atmosphere. This system eliminates the need to cleanse completed circuit boards, obviating the use of CFCs.

FUSCOAT

These functional resin coated aluminum sheets provide enhanced formability, corrosion resistance, scuff- and fingerprint-resistance, resistance to chemicals, electrical conductivity, ease of printing, and anti-bacterial and anti-mold properties. They are also self-lubricating, so that disposal of the lubricants and cleansers formerly used in the stamping process are eliminated.



Environmental Risk Management

Countermeasures Regarding Pollution of Soil and Groundwater

We have been conducting soil and groundwater pollution investigations at Facilities that have a history of use of toxic substances. We promptly take actions against the pollution of soil and groundwater that are found during investigations, to secure the health and safety of the local community.
We also report to the administration about the environmental conditions and measures to be adopted to clean the environment and disclose the information to local residents, related institutions and media according to the content.
In fiscal 2003, we have formulated **"Soil Environmental Risk Management Guidelines"** in order to restrict and thoroughly control handling of specific toxic substances that cause pollution of soil and groundwater, and we are carrying out activities according to these guidelines.

Outline of Soil Environment Risk Management Guidelines

1) We shall restrict handling of specific toxic substances specified in Soil Contamination Countermeasures Law.

Construction of new storage facilities and piping shall be positioned above the ground in principle when they are newly installed. Underground construction shall be prohibited.

2) We shall thoroughly manage use, storage and disposal of hazardous substances and seek to shift to substitute substances.

(1) For specific hazardous substances which are currently used, spots with possible risk of leakage of these hazardous substances into soil and groundwater shall be checked and recorded.
(2) We shall review processes where hazardous substances are used and seek to reduce usage volume of such substances. We shall also shift to substitute substances.

3) We shall implement investigation of the usage record of specific hazardous substances at all Plants and Facilities.

(1) We shall investigate the record of usage of specific hazardous substances tracking back to around 30 years ago and shall continue monitoring the usage of hazardous substances.
(2) The record of usage of specific hazardous substances shall be investigated according to written materials and shall record the periods and volume of purchase, use, storage, and disposal. The locations where each of these processes is carried out shall be recorded on a diagram or others and these records shall be stored.

Situation and Countermeasures Regarding Pollution of Soil and Groundwater

❶ Situation and Countermeasures at Furukawa Electric — Nikko Works

It was discovered that the soil on the premises of the works and company owned peripheral areas was contaminated with selenium, arsenic, lead and cadmium; and the groundwater on the Works' premises was contaminated with selenium, arsenic and lead. Investigations, however, found that groundwater, in areas near the border of the premises and company owned peripheral areas, was not polluted.
The copper refinery business which apparently caused this heavy metal contamination was discontinued in 1988 and thus there is no possibility of new pollution.
With respect to purification of the soil in the company-owned peripheral areas, we held a briefing session in March 2003 for local residents about the countermeasures adopted. After installation work for purification of the facilities was carried out in April and May, we started the decontamination work in June. We applied the method in which the polluted soil is transported out of the premises and is cleansed.
Cleansing work for the entire company owned areas is scheduled to be completed in 2007.

❷ Situation and Countermeasures at Affiliated Companies of Furukawa Electric

Furukawa Electric advises its affiliated companies to respond appropriately to local residents, the government administration and other parties involved.
Affiliated companies of Furukawa Electric that were found to have water and soil pollution in fiscal 2003 and their contamination situations are as follows.

① TOHTOKU ELECTRIC (Disclosure: December 2003)

Contaminant	PCB/dioxin
Location	Former Nagato Works (Nagato Town, Chiisagata County, Nagano)
Situation	Soil and ground water pollution on the premises of the company.
Countermeasures	Drilling and storage of contaminated soil, monitoring of groundwater

② KYOWA ELECTRIC WIRE (Disclosure: January 2004)

Contaminant	Pb/cyanogens/B/F/dichloromethane
Location	Former Osaka Works (Neyagawa City, Osaka)
Situation	Soil and ground water pollution on the premises of the company
Countermeasures	Pumping and purifying groundwater

③ FURUKAWA COLOR ALMINUM (Disclosure: March 2004)

Contaminant	Cr (hexavalent)/F
Location	Main Works (Utsunomiya City, Tochigi)
Situation	Soil pollution on the premises of the company, groundwater in the company owned areas and near-border areas
Countermeasures	Pumping and purifying groundwater

Furukawa Electric's Safety, Environment and Quality Control Department and relevant divisions support affiliated companies so that they can take actions against contamination promptly, from planning of pollution investigation to developing countermeasures.

Storage of PCB

Concerning PCB, which had been used as insulation oil for electrical equipment, transformers, electrical capacitors and stabilizers for fluorescent light, volume is controlled and managed at each works of Furukawa Electric.
The table here shows the status of use and storage of PCB at each works and it remained unchanged from fiscal 2002.

PCB Storage Status

■ PCB Storage Status

Unit: Number of equipment

No.	Name of works	Removed and stored	In use	Total
1	Chiba Works(Processed)	86	0	86
	Chiba Works(Unprocessed)	36	0	36
2	Nikko Works (Kiyotaki District)	182	140	322
3	Nikko Works (Sheet Plant)	7	44	51
4	Hiratsuka Works	40	3	43
5	Oyama Works	14	36	50
6	Mie Works	53	73	126
7	Osaka Works	55	11	66
8	Fukui Works	0	0	0
9	Shiga Works	9	0	9
10	Kambara Works	0	3	3
11	Shinagawa Works	(Stabilizer only)	0	(Stabilizer only)
12	Yokohama R&D Laboratories	9	0	9
Total		491	310	801

Compliance with Laws and Regulations

We are regularly confirming laws and regulations to be observed, making efforts for compliance by patrolling sites to check implementation status.
We keep track of revisions of laws and regulations, by closely following the latest information in government gazettes. There was one case of infringement of prefectural ordinances at Hiratsuka Works, and we immediately remedied the situation.

Environmental patrol

Ammonia Gas Treatment at Hiratsuka Works

Ammonia gas concentration at the emission outlet for some plastics manufacturing equipment is restricted by "Ordinances concerning safety of living environment of Kanagawa prefecture". We regularly measured gas concentration at the outlet and found that gas concentration sometimes exceeded the limits, depending on some manufacturing conditions. Upon reporting the case to the administration, we were advised to improve and we devised measures to improve the situation.
We have decided to reduce gas concentration by installing ammonia gas treatment equipment and submitted the "Proposals of Ammonia Gas Treatment" to the administration. The proposal was accepted and thus we commenced construction of gas treatment equipment in October 2003. It is scheduled to be completed in the first half of 2004.
Furthermore, we measured ammonia gas concentration levels at near-boundary locations of the works' premises. No traces of ammonia were detected near the boundary and no impact to the surrounding areas of the works was found.

Environmental Preservation Performance Indicators

Below, the data for atmospheric emissions and wastewater quality including NOx, SOx and soot for atmospheric emissions, and pH, COD (or BOD), SS and n-h (mineral oil) for wastewater quality; of six Works that are registered as specialized plants are presented.

Atmospheric Indicators

		Item	Equipment	Legal Standards	Self-imposed Standards	Average Value	Maximum Value
Chiba Works		NOx (Nm^3/Hr)	Boiler Melting furnace	0.45 1.77	82 (ppm) 63 (ppm)	50 (ppm) 24 (ppm)	66 (ppm) 25 (ppm)
		Soot (g/Nm^3)	Boiler Melting furnace	0.05 0.39	0.010 0.065	0.004 0.020	0.009 0.026
Mie Works		NOx (ppm)	Boiler Melting furnace	180 180	140 140	54 9	54 9
		SOx (Nm^3/Hr)	Boiler Melting furnace	0.6 41.6	0.5 33.3	0 0	0 0
		Soot (g/Nm^3)	Boiler Melting furnace	0.3 0.3	0.24 0.24	<0.005 <0.003	<0.005 <0.003
Nikko Works	Kiyotaki District	NOx (ppm)	Boiler Melting furnace Dryer furnace	180 200 300	180 200 250	81 32 28	110 44 29
		SOx (K value)	Boiler Melting furnace Dryer furnace	17.5 17.5 17.5	17.5 17.5 17.5	0.51 1.2 0.18	0.62 1.7 0.18
		Soot (g/Nm^3)	Boiler Melting furnace Dryer furnace	0.3 0.2 0.5	0.3 0.2 0.2	0.003 0.003 0.002	0.006 0.012 0.016
	Sheet Plant	NOx (ppm)	Boiler Melting furnace Heating furnace	230 180 200	230 150 160	51 46 74	52 47 89
		SOx (K value)	Boiler Melting furnace Heating furnace	17.5 17.5 17.5	14.5 14.5 14.5	0.03 1.10 0.10	0.03 2.00 0.11
		Soot (g/Nm^3)	Boiler Melting furnace Heating furnace	0.25 0.30 0.25	0.25 0.25 0.25	0.005 0.007 0.009	0.006 0.012 0.016
Osaka Works		NOx (ppm)	Boiler Melting furnace Heating furnace	150 200 170	120 160 144	2.0 2.0 2.0	2.0 2.0 2.0
		SOx (K value)	Boiler Melting furnace Heating furnace	1.17 1.17 1.17	1.17 1.17 1.17	0 0 0	0 0 0
		Soot (g/Nm^3)	Boiler Melting furnace Heating furnace	0.10 0.20 0.25	0.08 0.16 0.20	0.002 0.001 0.001	0.002 0.002 0.001
Fukui Works		NOx (ppm)	Boiler Melting furnace Heating furnace Dryer furnace	120 120 120 110	110 110 110 100	74 74 31 30	87 85 50 50
		SOx (ppm)	Boiler Melting furnace	380 160	50 130	5 23	5 76
		Soot (g/Nm^3)	Boiler Melting furnace Heating furnace Dryer furnace	0.10 0.20 0.12 0.12	0.05 0.16 0.10 0.08	0.005 0.019 0.005 0.007	0.006 0.047 0.006 0.009
Oyama Works		NOx (ppm)	Boiler Melting furnace Heating furnace	150 180 130	180 120 120	70 115 56	78 155 65
		SOx (K value)	Boiler Melting furnace Heating furnace	7 7 7	1 1 1	0.03 0.08 0.07	0.03 0.10 0.07
		Soot (g/Nm^3)	Boiler Melting furnace Heating furnace	0.3 0.2 0.2	0.1 0.1 0.1	0.004 0.021 0.003	0.006 0.035 0.003

Water Quality Indicators

		Item	Unit	Legal Standards	Self imposed Standards	Average Value	Maximum Value
Chiba Works		pH		5.0~9.0	5.0~9.0	7.9	8.2
		COD	(mg/l)	15	15	5.5	9.3
		SS	(mg/l)	20	20	4.4	9.2
		n-h (mineral oil)	(mg/l)	2	2	0.2	0.2
Mie Works		pH		5.8~8.6	6.5~8.5	7.4	7.8
		BOD	(mg/l)	10	4	2.0	9.0
		SS	(mg/l)	25	6	0.9	1.9
		n-h (mineral oil)	(mg/l)	1	0.7	0.1	0.3
Nikko Works	Kiyotaki District	pH		5.8~8.6	6.0~8.5	7.4	7.8
		BOD	(mg/l)	25	16	3.4	5.1
		SS	(mg/l)	50	20	1.4	4.8
		n-h (mineral oil)	(mg/l)	5	0.5	0.2	0.2
	Sheet Plant	pH		5.8~8.6	6.5~8.5	7.2	7.6
		BOD	(mg/l)	25	10	1.1	1.6
		SS	(mg/l)	50	25	2.8	9.5
		n-h (mineral oil)	(mg/l)	5	2.5	<1	<1
Osaka Works		pH		5.7~8.7	5.7~8.7	7.6	7.8
		BOD	(mg/l)	300	10	2.5	3.5
		SS	(mg/l)	300	50	12	28
		n-h (mineral oil)	(mg/l)	5	2	1.4	2.0
Fukui Works		pH		5.0~9.0	5.5~8.8	7.5	8.1
		COD	(mg/l)	600	250	42	118
		SS	(mg/l)	600	250	29	89
		n-h (mineral oil)	(mg/l)	5	4.5	0.5	1.2
Oyama Works		pH		5.8~8.6	6.0~8.0	7.3	7.7
		BOD	(mg/l)	25	20	3.0	4.9
		SS	(mg/l)	50	30	11	17
		n-h (mineral oil)	(mg/l)	5	2	<0.5	<0.5

Environmental Accounting

We compiled 'environmental preservation costs', "economic benefits associated with environmental preservation measures" and "physical benefits associated with environmental preservation measures" for fiscal 2003 to grasp the results of environmental costs and benefits quantitatively. The data is collected in conformity with the environmental accounting guidelines published by the Ministry of the Environment. (Please see the other page for environmental accounting of our affiliated companies.)
Environmental preservation costs in fiscal 2003 were: expenses of 6.2 billion yen and CAPEX of 600 million yen. Economic benefits were 400 million yen. Expenses increased by 1.5 billion yen from fiscal 2003, due to increases in soil pollution treatment costs and development costs for environmentally friendly products.

Scope of data collection: All the works of Furukawa Electric Period of data collection: From April 1, 2003 to March 31, 2004

Environmental Preservation Costs

Unit: million yen

Category	Major Contents of Activities	Amount	Change over the previous year
(1) Business area costs	Pollution prevention, global environmental preservation, resource recycling, etc.	2,648	46
(2) Upstream/downstream costs	Retrieval and recycling of containers, packaging, drums, etc.	429	-100
(3) Administration costs	Establishment, maintenance for pro-environmental management systems; maintenance for environmental preservation, measurement of environmental impact	598	61
(4) Research and development costs	R&D of environmentally friendly products, research in substitutes for toxic substances, R&D of environmental impact reduction in manufacturing processes, etc.	1,503	616
(5) Social activity costs	Disclosure of information, greening, etc.	14	5
(6) Environmental remediation costs	Assessment for environmental impact, investigation and measures for soil and groundwater pollution, etc.	1,046	857
Total		6,238	1,485

Investment and Research Costs

Unit: million yen

Investment and Research Costs	Amount	Change over the previous year
Environment-related investment	649	-157
Total investment costs	11,600	-300
Total research costs	11,900	-2,300

Economic Benefits Associated with Environmental Preservation Activities

Unit: million yen

Content	Amount	Change over the previous year
(1) Revenues gained by recycling	142	17
(2) Reduction in waste disposal costs	26	148
(3) Reduction in energy expenses	175	-339
(4) Reduction in water purchase costs	29	-36
Total	372	-210

Physical Benefits Associated with Environmental Preservation Activities

Discharged amount of environmentally harmful materials	Unit	Impact on the environment	Reduced amount (Change over the previous year)
Industrial waste (excluding waste from recycling)	ton	10,739	-82
Energy consumed (crude oil basis)	KL	327,000	-1,645
Water consumed	K.ton	25,000	2,700
Emission of volatile organic chemical compounds	ton	67	34
CO_2 emission	CO_2-ton	590,638	6,394
SOx emission	ton	96	-4
NOx emission	ton	624	363
Soot emission	ton	44	16

Awareness Activities and Social Contribution Activities

Awareness Activities

In order to improve the environmental awareness of the employees, we have put up an environmental campaign poster at the Facilities and other places. The poster contains a slogan about environmental preservation activities, Basic Environmental Policy and major activity targets for the fiscal year. In June, which is designated as the month of environmental preservation, the chairman of the Central Committee for Environment Management delivered a message to all the employees including the significance of the month of environmental preservation and encouragement of environment-related activities. In addition, each works carries out activities such as distribution of a leaflet informing about the environmental preservation month, installation of notice boards, calling for a catchphrase concerning the environment, implementation of the 5S activities in and around the Facilities' premises together with nighttime patrols.

Environmental Seminar for Executives

In order to further strengthen consciousness of managers towards the environmental activities, we held a seminar for managers of consolidated companies. We invited university professors and managers of the environmental divisions of Japan's leading companies, who are experts in environmental issues, as speakers. We held the first lecture titled "Outlook of Eco-economy" and "Initiatives of Companies on Pro-environmental Management" in September 2003. A total of 102 top officials, including the President, executive directors, and members of the Central Committee for Environmental Management and personnel in charge of environmental management at Facilities of Furukawa Electric, and presidents and other managers of affiliated companies participated in the lecture.

Information Disclosure on Website

On our website, we disclose how Furukawa Electric is promoting its environmental preservation initiatives, and present past environmental reports in PDF format.

Furukawa Electric's website

http://www.furukawa.co.jp/

Social Contribution Activities

From fiscal 2002, Chiba Works actively participates in "Eco-Fair Ichihara" held at Ichihara Citizen Hall and engages in various interactions with local primary schools. The chiba Works also donated to "the Chiba Environment Regeneration Fund". The other works also engage in cleaning activities near the premises.

Exhibit at Eco-Fair Ichihara

Organic fertilizer made from cafeteria garbage in Chiba Works are used for flower beds in the primary school

We invite primary school students to visit the works during the month of environmental preservation

Cleaning activities near Kambara Works

Cleaning activities near Shinagawa Works

Safety, Health and Human Resources

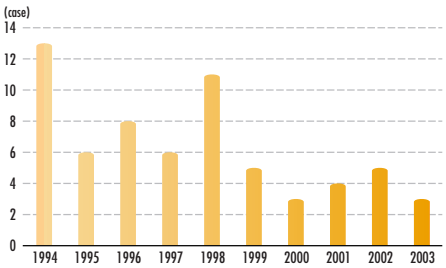
Furukawa Electric believes that its asset is "people". We are working on creating an environment where our people can work comfortably.

1. Organization for Safety and Health Activities

Five years have passed since the occurrence of a grave accident, which led us to establish the Safety, Environment and Health Promotion Dept that consists of experts in safety, health and environment, under the direct control of the President. In this new organization, the responsibility lies with the managers of business divisions, not with the managers of the works. Company-wide policies and measures are discussed at the Central Committee for Safety and Health in which a Director in charge of safety and health takes office as the chairman and managers of business divisions as the members. Safety and health activities are promoted in the organizations where company-wide priority safety measures are proactively implemented.

In addition, we are promoting reform of entire employees' safety awareness program and elimination of unsafe activities by promoting safety and health education by experienced visiting lecturers to all works, and by standardizing on-the-spot and on-the-material safety investigation of plants, safety design and safety operation.

■ Number of accidents that led to cessation from work



2. Priority Safety Activities in Fiscal 2003

Items for Company-wide Priority Safety Activities

1. "Point and call' safety check for dangerous work"
Definition of around 5000 items of required and prohibited practices regarding dangerous work and 100% implementation of "point and call" safety check before starting work.
2. "Acquisition of safety and health qualification and worker education"
Enriching the work supervisor's duty through establishment of compliance management system (standardization) and management of system (daily management)
3. "Safety and health education for all workers"
Encouraging all employees to acquire systematic safety knowledge and eliminate unsafe work by providing one year intensive safety and health education by safety and health instructors trained in the course.

Company-wide Priority Safety Activities

Activities are carried out by focusing on the company-wide priority safety activities which are decided according to Safety Control Guidelines issued in fiscal 2003.

Safety Education

Training for safety and health instructors was carried out over three days for 112 employees. The education course included acquisition of specialized knowledge, sharp foresight to danger, and training method of subordinates

A safety check of plants was carried out at 8 works over two days and training for the Plants design of safety and health was carried out at 4 works.

Development of standardization

We have been focusing on standardizing plant safety design in conformity with ISO12100 certification, and we are working on formulating safety design standards for individual plants which corresponds to C- specifications in 2003, following the formulation of A- and B- specifications of plant safety design in 2002.

We are proactively setting plant standards for safety, quality and productivity in unison.

Comprehensive safety check to prevent grave industrial accidents

Considering the frequent occurrence of a number of grave accidents at major domestic companies since the summer of 2003, we are working hard to prevent such occurrences through comprehensive inspections on buildings and machinery equipment against fire and explosion.

3. Total Health Management from Both Mental and Physical Aspects

Advancing Mental Health Care

Furukawa Electric has been promoting company wide mental health measures since 2002, in line with "Guidelines for Mental Health in the Work Place" by the Ministry of Health, Labor and Welfare (former Ministry of Labor).

We provide mental health education with the themes and subjects decided every year in order to understand and deal with mental health appropriately. Following the guidelines, we provided "Care by Line" education for managers and supervisors and "Self Care" education for general employees in 2003, completing education for all employees.

In 2004, the managers and supervisors will confirm the contents of these educational programs with their subordinates, the general employees. Unlike the education delivered by medical-related lecturers, we aim at sharing knowledge regarding mental health at worksites between seniors and juniors through interaction.

Lifestyle Advice

We started unified management of medical check-up information in 2002, which enables us to analyze company wide data on medical check-up and lifestyles according to Works, or the age group and others from diversified viewpoints. In April 2004, with the help of medical institutes, we started Lifestyle Advice in order to make use of the data to prevent lifestyle related diseases such as ischemic heart disease or cerebral stroke.

Based on the graph in which employe'es data of BMI, blood pressure and cholesterol, with the average of company employees of the same generation or the average of data of 500,000 patients of medical institutes, we provide advice to prevent lifestyle-associated diseases tailored to each individual's condition. Based on population strategies, we aim to motivate as many employees as possible, not just employees with high risks of diseases, to change their lifestyles by advising them on alternative lifestyles.

Lifestyle Advice

4. Relations with Employees

Furukawa Electric's View on the Relationship Between the Company and Its Employees

Furukawa Electric is striving to build a sincere relationship with its employees based on trust and responsibility. In addition, through business and work, we aim to establish more constructive relations in which the company and employees enhance abilities and values of each other.

Placement, Evaluation and Job Conditions

We work to provide opportunities for placement and job assignment emphasizing individual motivation and abilities based on the concept of equal opportunity. As a part of the move, we implement various interview systems and provide opportunities to reflect on one's career goals.

For evaluation and incentives, we adopted an incentive program which realizes fair evaluation and treatment of employees according to their abilities and performance. We are also working on training managers for performance evaluation skills to improve the management of the system and win the trust of employees.

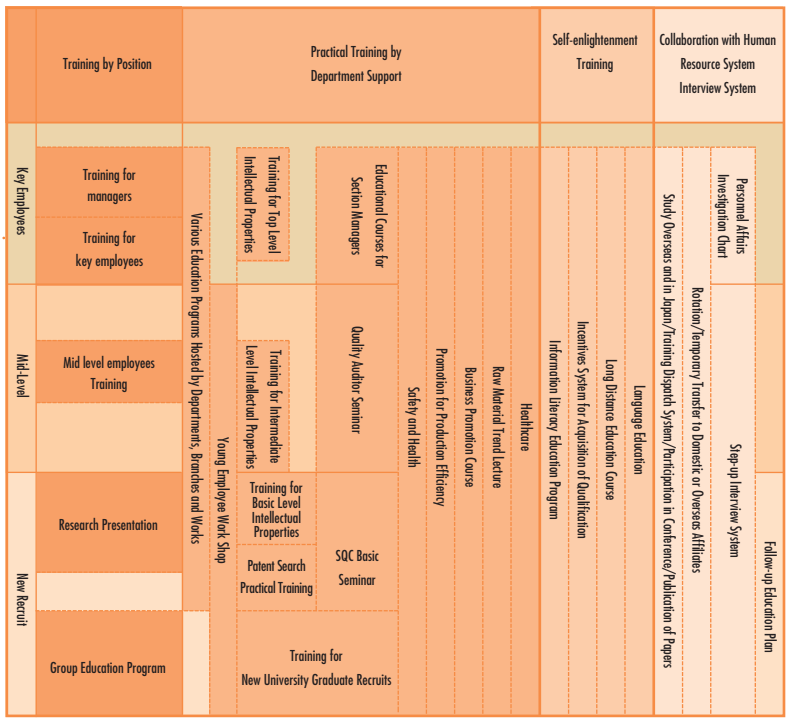
Education and Training Systems

We believe that the strength of a company is in the synergy of abilities exercised by each employee at the work site and that each employee's ability is enhanced through everyday work, pragmatically.

Furukawa Electric provides a place for individuals to grow through work and provides opportunities to support a proactive approach for development of skills by motivated employees. These opportunities include training, long distance education and support for acquisition of qualifications.

Support System Corresponding to Various Ways of Working

We respect our employee's lifestyle and establish various support systems that enrich each individual's personal life.



Various systems	Purpose/Content
Flexible Working Hours	We adopt flexible working hours system which enables employees to work efficiently according to the business demand. We support employees to have flexible working hours that suit their lifestyles.
Refresh Holiday	Employees are able to take three consecutive holidays once a year and five consecutive holidays every five years so that they can enjoy well-planned holidays and refresh their mind and body.
Holiday Accumulation	Maximum of 10 days out of the remaining regular annual holidays can be carried forward to accumulated holidays (effective for five years).
Maternity/Paternity Leave	Any employee who has a child under one year of age can take a maternity/paternity leave for whatever duration they desire until their child is one year old.
Nursing Care Leave	In case an employee's spouse, child or parents (including spouse's parents) need nursing care, that employee is able to take nursing care leave for less than one year if certain conditions are fulfilled.
Retirement Seminar	For union members who reach a certain age, labor and management jointly provide Retirement Seminars with the aim of enhancing life in their current position and supporting life after retirement.

Environmental Activities of the Works

The Works of Furukawa Electric engage in activities to harmonize with the local community as a good corporate citizen.

Nikko Works

Seeking to Coexist with Beautiful Nature

The Nikko Works is the mainstream works for Furukawa Electric's wrought copper division. It has also advanced in areas such as research on power transmission cables and superconductivity wires, one of the most advanced technologies. Nikko Works has the largest copper melting plant in Japan located inside Nikko National Park surrounded by magnificent and beautiful nature. Therefore, we take initiatives to preserve the environment, reducing environmental impact as the most important objective. In concrete terms, Nikko Works strives to succeed in environmental preservation through proactive environmental activities for reduction of environmental risk, reduction of industrial waste, conservation of energy and reduction of hazardous chemical substances.

▲Primary students often visit our works

Garbage collection ▲▶

With regard to reduction of industrial waste, we promoted recycling of garbage from daily life. We carried out thorough education to encourage employees to patrol garbage stations in the works and re-sort the garbage. As a result, we have almost halved the garbage to be incinerated.

With regard to reducing hazardous chemical substances, we promoted alternative substances to replace chlorine organic solvent used for cleansing superconductive wires and attained total elimination of hazardous substances.

Meanwhile, in the Sheet Plant that is engaged in aluminum production, energy needed for aluminum casting, is shifted from crude oil to LNG (liquid natural gas), improving energy saving in the environment in terms of CO_2 emission.

Electric power for the Nikko Works is supplied by our 100% subsidiary, Furukawa Nikko Power Generation Inc., a hydropower station that uses abundant waterways in Nikko. Nikko Works takes full advantage of clean energy resources and seeks for co-existence with rich nature, by always aiming to reduce the environmental impact.

Nikko Works

Location : 500 Kiyotaki Town, Nikko City, Tochigi
Floor Space : 466,000.
Number of employees : 1,405 (as of March 25, 2004)
*Sheet Plant is a part of Nikko Works

Manager of Nikko Works
Toshihisa Tagashira

Looking forwards to reform environmental awareness of each employee

Nikko Works acquired ISO14001 certification in 2002. I honestly feel that our employees' environmental awareness is just about to grow from now on. Safety, Health and Quality has become the theme taken for granted and we have just started carrying out activities including environmental issues.

The Nikko Works is very different from other works because of its location, which is inside a national park. We must strive to coordinate with the richness of nature and carry out our mission to pass it on to the next generation in its entirety. Awareness for environmental preservation will not be acquired overnight but we, together with the local community, would like to protect the precious nature through improved and coordinated activities. The cleaning activities that we started implementing 2 years ago inside our premises during the month of environmental preservation have now extended to cleaning activities outside our premises. The scope of these environmentally friendly activities is still expanding.

Hiratsuka Works

Prominent Development of Environmentally Friendly Products and Technology

Hiratsuka Works, which acquired ISO14001 certification in 2000, has a wide range of product line-ups such as networks, electronics, industrial equipment, electrical appliances and three layered insulated electric wires that boast the top global market share. The works largely features the development of environmentally friendly products in its Ecology and Energy Laboratory, which opened in 2000. Many of Furukawa Electric's environmentally friendly products and technologies were created here and a number of projects are still ongoing.

As with other environmental preservation initiatives, all of the employees pursue zero-emissions activities, reduction of greenhouse gases and reduction of hazardous chemical substances. Particularly, in zero-emissions activities, we attained results significantly exceeding the targets for fiscal 2003. Although we have many different departments within the works, the manager and the EMS secretariat visit each department twice a year to monitor the progress in achieving the environmental performance goals and provide follow-ups to resolve challenges. We are working together to improve environmental preservation activities continuously by exchanging and sharing information.


▲Cleaning activities


▲Hiratsuka City Environmental Fair (City Hall)


▲Furukawa booth

The works interacts with neighboring companies doing things like visiting the companies that have already achieved zero-emissions targets to learn from their experiences. Based on such relations, we have launched "Clean-up Hiratsuka city" activities. These are cleaning activities for pedestrian walkways near the plant, which are carried out with neighboring companies once a month. We intend to expand these activities to the whole community by encouraging cooperation in the City Government, Chamber of Commerce, and Industry in working with us.

Hiratsuka Works

Location : 5-1-9 Yawata, Hiratsuka City, Kanagawa
Floor Area : 283,000㎡
Number of employees : 968 (As of March 25, 2004)

Manager of Hiratsuka Works
Toshio Kikuta

Realizing environmental preservation rooted in local community

We have significantly reduced disposed waste for landfills in fiscal 2003 compared to fiscal 2002. This was mainly achieved by recycling and converting disposed plastics and others to fuel. We have set even higher targets for fiscal 2004. According to the companies that have achieved zero emission targets, thorough and detailed sorting is the most effective measure for zero-emissions.

Therefore, I, myself, visit the disposal collection sites with the section manager of the workplace and emphasize on-site education, while checking each item for the possibility of recycling. I am not only working with employees on environmental preservation activities, but also putting my qualifications in health engineering to use by committing myself to support improvement in safety and health, while scientifically evaluating the work environment.

Fukui Works

A Multi-dimensional Approach to Environmental Preservation Activities

Fukui Works, which is located in the Fukui Coastal Industrial Region on the shore adjacent to scenic TOJINBO, provides aluminum products to many industrial areas, from thick sheets with the largest width in Japan of 4,000 mm which are used for LNG tanks to thin sheets for beverage cans and foil materials.

The works is the largest aluminum rolling plant to be located near a tourist area. Ever since 1983, when we launched this works, we have been actively engaged in pollution prevention activities in order to comply with pollution thresholds regarding wastewater and gas emissions which we concluded with the local government.

We acquired ISO14001 certification in April 2002, and are continuously pursuing improvement of environmental preservation activities based on an environmental management system.

We have greatly succeeded in recycling industrial waste in fiscal 2003: we have recycled sewage discharged from the works to cement materials, recycled disposed wooden pallets as square timber inside the works and recycled disposed plastics and paper waste and waste fiber to RPF raw materials.

We are also proactively reducing packaging materials. We are promoting the use of iron pallets as they can be used many times compared to wooden ones and have an advantage in terms of safety and health, so we are shifting from paper to iron pallets with the cooperation of customers.

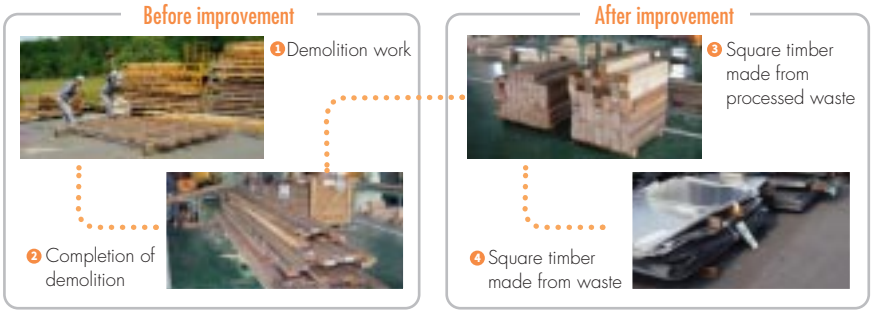
As part of an awareness campaign for all employees, we held various events during the environmental preservation month. For starters, we made a leaflet with event information encouraging active participation during the month under the authority of the works manager, and distributed them to employees when they came to the office.

Offering a catchphrase concerning the environment and having environmental quizes won favorable reactions as employees could have fun learning about the environment.

▲Planting commemorative trees

The works had its 20th anniversary in 2003 and all employees planted 112 cherry saplings in commemoration of the anniversary in November.

The Name of the employee who planted each seedling is placed at its base. We hope that all employees will nurture environmental preservation activities as the trees grow.



Fukui Works

Location : 21-1 Kurome, Mikuni Town, Sakai County, Fukui
Floor Space : 850,000.
Number of employees : 470 (As of March 25, 2004)

Furukawa-Sky Aluminum Corp.
Manager of Fukui Works
Suketoki Ooya

A company striving to lead the local community

The Fukui Works is an aluminum rolling plant, engaged in material production business, which has a large impact on the environment. Therefore, since its foundation, we have been pursuing environmental preservation activities aiming to harmonize the works with the surrounding environment, which becomes more important when taking into account its location which is adjacent to TOJINBO, representing Echizen Coast State Park.

In fiscal 2002, when we acquired ISO14001 certification, we further recognized the importance of environmental preservation activities accompanied by sustainable improvement following an event that the prefecture owned soccer ground next to our plant was selected as a training camp for the Mexican team in the World Cup.

I view acquisition of ISO14001 certification as a 'hop', planting commemorative trees for the 20th anniversary of company inauguration as a 'step', and hope for a 'jump' to be more environmentally friendly works through environmental preservation activities that are actively pursued by all employees.

Our efforts for preserving the environment draw attention in the local community as it is a major works in the Fukui Coastal Industrial Zone.
We intend to further pursue activities which can help us to lead the local community.

Overview of Consolidated Environmental Activities

Furukawa Electric has strengthened its environmental preservation activities together with affiliated companies as a corporate group. In fiscal 2002, we established the Liaison Meeting of Affiliated Companies and engaged in environmental preservation activities with the slogan, "We, as a corporate group, shall promote environmental preservation activities, aiming for reduction of environmental risks, and thereby contributing to society and improving the evaluation of our activities by society". In fiscal 2003, we established the Liaison Meeting for Consolidated Environmental Management. This committee is used by the environmental administrators of affiliated companies not only to promote and support environmental activities but also to exchange information. We started compiling group-wide environmental data and reflecting the results of group activities. In addition, group's managers held seminars to improve employees' environmental awareness. Coordinated efforts from all the affiliated companies for environmental preservation helped us achieve encouraging results.

Names of 40 affiliated companies

No.	Company Name	ISO14001	Handling volume	System	Soil temperature	Soil	PRTR	Organic chemicals	Industrial waste
1	Access Cable Company	○		○	○	○	○	○	○
2	Asahi Electric Works, Ltd.	○		○	○	○	○		○
3	INOUE MANUFACTURING CO., LTD.	○		○	○	○	○	○	○
4	NTEC LIMITED			○	○	○			
5	F-CO CO., LTD.	○	○	○	○	○		○	
6	FCM CO., LTD.	○		○	○	○	○	○	○
7	Okano Electric Wire Co., Ltd.	○		○	○	○		○	
8	OKUMURA METALS CO., Ltd.	○		○	○	○	○	○	○
9	The Kyusyu Furukawa Electric Co., Ltd.	○		○	○	○	○	○	○
10	KYOWA ELECTRIC WIRE CO., LTD.	○		○	○	○	○	○	○
11	SUNSUNNY INDUSTRY CO., LTD.			○	○	○			
12	SHODENSHA CO., LTD.	○		○	○	○	○	○	○
13	SEIWA GIKEN INC.	○		○	○	○			
14	TOTOKU ELECTRIC CO., LTD.	○	○	○	○	○	○	○	○
15	T.H. FURUKAWA ELECTRIC CO., LTD.	○		○	○	○		○	
16	Nikkei Kakoh Co .,LTD.	○		○	○	○	○	○	○
17	Nippon Foil Mfg. Co., Ltd.	○	○	○	○	○		○	
18	Higashi Nihon Tanzou Co., Ltd.	○		○	○	○			
19	FURUKAWA ALTEC Co., Ltd.			○	○	○			
20	FURUKAWA INDUSTRIAL CABLE CO.,LTD.	○		○	○	○	○	○	○
21	FURUKAWA INFONET PRODUCTS CO., LTD.	○		○	○	○			
22	FITEC Corp.	○		○	○	○			
23	Furukawa Elecom Co., Ltd.			○	○	○			
24	The Furukawa Electric Engineering Service Co., Ltd.	○		○	○	○			
25	FURUKAWA AUTOMOTIVE PARTS INC.	○		○	○	○	○	○	○
26	FURUKAWA COLOR ALUMINUM CO., LTD.	○		○	○	○		○	○
27	Furukawa Circuit Foil Co., Ltd.	○		○	○	○		○	○
28	Furukawa Sangyo Kaisha, Ltd.	○	○	○	○	○			
29	Broad Wireless Corporation	○	○	○	○	○			
30	FURUKAWA INDUSTRIAL PLASTICS CO., LTD.	○		○	○	○		○	○
31	Furukawa Precision Engineering Co., LTD.			○	○	○	○	○	
32	FURUKAWA ENGINEERING & CONSTRUCTION INC.	○	○	○	○	○			
33	The Furukawa Battery Co., Ltd.	○	○	○	○	○	○	○	○
34	FURUKAWA LOGISTICS CORP.	○		○	○	○			
35	FURUKAWA TECHNO MATERIAL CO., LTD.	○		○	○	○	○	○	○
36	FURUKAWA LIFE SERVICE Inc.	○		○	○	○			
37	MIHARU COMMUNICATIONS INC.			○	○	○			
38	Yamada Keikinzoku Co., Ltd.	○		○	○	○			
39	Riken Electric Wire Co., Ltd.	○	○	○	○	○		○	
40	Riken Fitel Co., Ltd.			○	○	○			

※Commenced operations in April 2004. Former name: Furukawa C&B

○…… ISO14001 : Acquiring certification
Environmental accounting : Executing environmental accounting and publishing its results in this report
System : Establishing an environmental management system

Environmental Management Activities

Global warming…… Plans for reducing/eliminating greenhouse gases
Industrial waste…… Compiling industrial waste data
Organic chlorine compounds……
Plans for reducing/eliminating organic chlorine compounds

PRTR…… Reporting to PRTR／listing chemical substances
Soil…… Investigating soil and groundwater pollution

Common Targets on Consolidated Environmental Management Activities

We have formulated common targets on consolidated environmental management activities and have been collectively pursuing these targets as Furukawa Electric group since fiscal 2003. Of the seven targets we marked in fiscal 2003, we have already achieved three. We will continue working on these activities to attain the other four targets in the coming years.

(Common targets)

	Item	Target	Target year	Reference page
1	Acquiring ISO14001 certification	Acquiring ISO14001 certification	Fiscal 2005	27
2	Reduction of industrial waste	Zero emissions activities: reducing waste directly disposed at reclamation sites by 50% over fiscal 2000 Reducing industrial waste (except for the recycled portion) by 30%over fiscal 2000	Fiscal 2005 Fiscal 2005	29
3	Reduction of greenhouse gases	Reducing CO2 emissions by 5% over fiscal 2000 Reducing CO2 emissions by 10% over fiscal 2000 Totally discontinuing the use of HFC and PFC, and reducing SF6 atmospheric emissions by 50% over fiscal 2000	Fiscal 2005 Fiscal 2008 Fiscal 2005	29
4	Strengthening control and reduction of chemical substances	Reducing effluence of organic chlorine compounds by 50% over fiscal 2000 Total elimination of effluent organic chlorine compounds	Fiscal 2005 Fiscal 2008	29

(Items for which targets were achieved)

	Item	Target	Performance
1	Indexing the progress of environmental management	Executing environmental accounting (for fiscal 2002)	Introduced environmental accounting on five affiliated companies and reported their results in the Environmental Report 2003.
2	Establishing an environmental management system	Clarifying persons responsible for activities and organization of environmental management, and administrating data	Launched Liaison Meeting for Consolidated Environmental Management Collecting and compiling data for each company (see page 29)
3	Issuing environmental reports	Reporting information of the group's activities in fiscal 2002, in the Environmental Report 2003	Introducing summaries of business and activities of four affiliated companies on the page "Environmental Activities of Affiliated Companies"

Environmental Accounting

We collected data from eight companies, five of which were listed in fiscal 2003 and have added three other companies this year. Like Furukawa Electric, the environmental accounting of the affiliated companies is also carried out in accordance with Environmental Accounting Guidelines by the Ministry of Environment.
Costs and investment amounts for environmental preservation in fiscal 2003 totaled 500 million yen and 160 million yen respectively. Economic effects amounted to 170 million yen.

Scope of data collection	Companies newly included in present data	F-CO, Broad Wireless and FURUKAWA SANGYO KAISYA
	Companies included in previous and present data	TOTOKU ELETRIC, Nippon Foil Mfg. Furukawa Engineering & Construction, Furukawa Battery and Riken Electric Wire
Data collection period from	April 1, 2003 to March 31, 2004	

Environmental Preservation Cost

Unit: million yen

Category	Major Activities	Costs
(1) Business area costs	Pollution prevention, global environment preservation, resource recycling, etc.	313
(2) Upstream/downstream costs	Retrieval and recycling of containers, packages and plastic products, etc.	78
(3) Administration costs	Establishment and maintenance of environmental management systems, maintenance for environmental preservation and measurement of environmental impact, etc.	83
(4) Research and development costs	Development of environmentally friendly products, etc.	49
(5) Social activity costs	Participation in official events for beautifying the environment, etc.	1
(6) Environmental remediation costs	Repair of corrosion-induced damages to underground wastewater piping	19
Total		543

Investment and Research Costs

Unit: million yen

Investment and Research Costs	Amount
Environment-related investment	163
Total investment cost	2,000
Total research cost	2,000

Economic Benefits Associated with Environmental Preservation Activities

Unit: million yen

Content	Amount
(1) Income from recycling	113
(2) Reduction in waste disposal costs through recycling	-24
(3) Reduction in energy costs through energy conservation	74
(4) Reduction in water purchase costs	11
Total	174

Physical Benefits Associated with Environmental Preservation Activities

Discharge of Substances Having an Adverse Environmental Impact	Unit	Impact on the Environment	Reduction Volume (Change over previous year)
Industrial waste (excluding waste from recycled resources)	ton	902	285
Energy consumed (crude oil basis)	KL	55,598	-2,915
Water consumed	K.ton	980	-47
Emissions of volatile organic compounds	ton	0.4	2.7
CO_2 emissions	CO_2-ton	87,667	-4,532
SOx emissions	ton	22	-4
NOx emissions	ton	387	-36
Soot emissions	ton	1.6	0.8

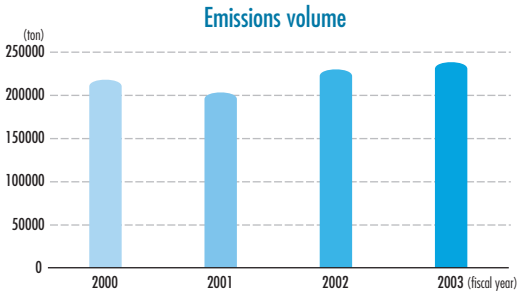
Environmental Impact Data of Affiliated Companies

(affiliated companies: 40 [63 sites])

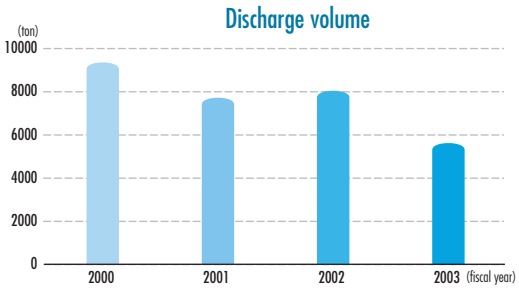
In fiscal 2003, we compiled data on the reduction of environmental impact generated by the activities of the Furukawa Electric group semi-annually. Environmental administrators from affiliated companies met to report progress and exchange information regarding environment improvement activities. The companies discussed trends regarding the environment in Japan and overseas and the latest revision of laws and regulations, ensuring compliance with these laws.

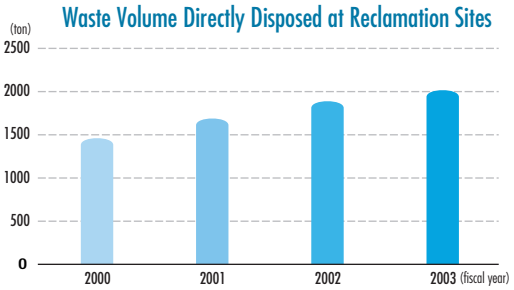
Furukawa Electric group has set common targets for the reduction of environmental impact. We have successfully reduced organic chlorine compounds such as trichloroethylene by 60% in fiscal 2003 compared to fiscal 2000. Unfortunately, volatile organic solvent waste volume directly disposed at reclamation sites and emissions of greenhouse gases are having an increasing trend in affiliated companies compared to Furukawa Electric where reduction of these pollutants progressed smoothly. This was mainly due to an increase in operations owing to economic recovery in Japan. Another reason is the shift of operations from Furukawa Electric to the affiliated companies. Thus, we believe that we should manage and improve the overall environmental preservation activities of the group.

Emissions of Greenhouse Gases

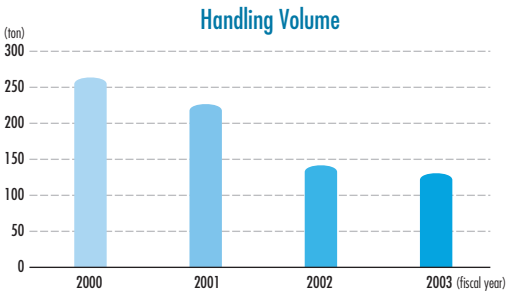


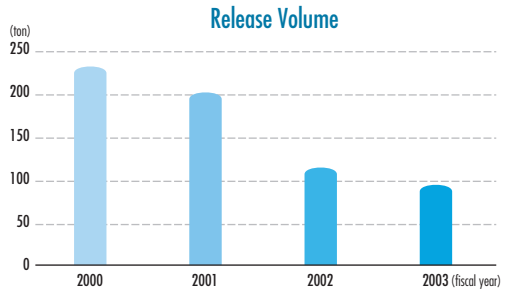
Discharge of Industrial Waste



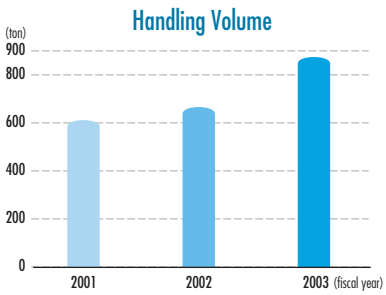


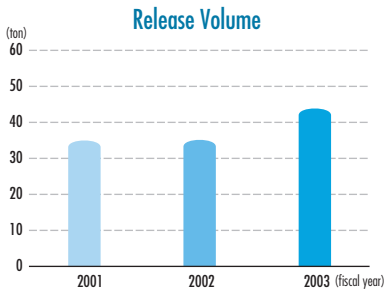
Reduction of Organic Chlorine Compounds (target substances: trichloroethylene, Tetrachloroethylene, Dichloromethane)





Reduction of Specific Chemical Substances (volatile organic solvents) (target substances: Xylene, Toluene)





Activities of Affiliated Companies

The followings are initiatives for environmental preservation taken by companies related to Furukawa Electric.

Nippon Foil Mfg. Co., Ltd.

History

Since its establishment in 1933 as a comprehensive metal foil maker, Nippon Foil Mfg. has manufactured and sold aluminum and copper foil products and other products made out of foils.
Our aluminum foil products are used as packaging materials in the food and pharmaceuticals industries. Miscellaneous goods mainly kitchen utensils, building and electronic materials are also manufactured from foils. In addition, our copper foil products are also used for batteries and shielding materials.
The plants are located in Nogi, Tochigi and Kusatsu, Shiga. We adopt every possible measure for water treatment at Shiga plant, particularly because Lake Biwa, the reservoir for the Kinki region, is located downstream from the plant.

Environmental Preservation Activities

Company Wide Environment Committee, which is a company wide organization, formulates environmental policies for the whole company and follows up all environmental activities. Each plant of Nippon foil Mfg also has an environmental committee, which engages in activities and sets its targets based on the company's policies.
We promote environmental activities focusing not only on compliance with laws and regulations, but also on reduction of industrial waste, energy conservation, sales of environmentally friendly products and environmental education.

The Shiga Plant acquired ISO14001 certification in October 1999 and the Nogi Plant acquired it in June 2000.
A Combined audit of the two plants is scheduled to take place in 2004.

Sales of Products with Reduced Environmental Impact

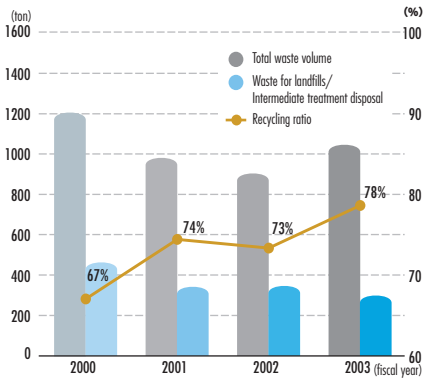
We are selling packaging materials, using ECOCE, a Biomas Film Composite.
We are also promoting chloroethylene-free and toluene-free products and are shifting to water based ink.

Reduction of Waste

Discharge of industrial waste increased temporarily due to the elimination of incinerators at the two plants, but we reduced the amount of waste discharged waste at reclamation sites and from intermediate disposal treatment as a result of sorting and retrieval of waste and selection of destination for recycled resources, attaining a rise in the recycling ratio from 67% in fiscal 2000 to 78%.

Cleansing liquid is one of the items in which we have made an improvement from fiscal 2003 and have changed the type of cleansing liquids. We have also generated reusable resources by sorting aluminum trash and paper trash attached to plastics.

■ Waste volume/Reusable resources volume



Reduction of waste at user level

Reduction measures at user level

1. Discontinue cardboard packaging and reuse pallets by promoting group packaging
2. Plastic core wrappers are promoted instead of conventional core wrappers to promote reuse.

Through the above measures, we help to reduce waste disposal at user level. Use of plastic cores, in particular, for 21 items, has reduced waste by around 36 tons per year.

▲Deodorizing treatment equipment

Examples of Energy Conservation and Improvement of VOC Treatment Facilities

VOC emission will be restricted due to a revision of the Clean Air Act but we have long strived for the air emitted from the plant to be free of harmful agents and for this purpose we have used a direct incineration method to process organic solvents discharged in the printing process and others, since 1976.
In 2003, we rebuilt our treatment equipment to utilize a heat storage incineration method, as one of the energy conservation measures. As a result, while electric power consumption slightly increased, we reduced gas consumption dramatically, thereby reducing energy costs by around 60 million yen per year.

Nippon Foil Mfg. Co., Ltd.

Osaka head office : 1-1 Nishinakajima 4-Chome, Yodogawa-ku, Osaka City,Nisshin Food Products building
Tokyo head office : 8-3 Higashi-Nihonbashi 2-Chome, Chuo-ku, Tokyo Higashi-Nihonbashi green building
Number of employees : 270
U R L : http://www.nihonseihaku.co.jp/

Enquiries
Company Wide Environmental Committee Secretariat
TEL +81-3-5835-2071 FAX +81-3-3865-3457

Furukawa Automotive Parts Inc.

History

The company was established in 1946 as a subcontractor of Furukawa Electric and manufactures cotton wrapping wires, bind wires and insulated cables and was reorganized as Oumi Electric Wire Co.,Ltd. in 1950.
The Company joined Furukawa Electric in 1960 in a technical alliance to produce wire harnesses for automobiles. Since then the company has developed into a leading manufacturer of wire harnesses for the automotive industry. In 2000, the company changed its name to Furukawa Automotive Parts INC.

Environmental Preservation Activities

The Company acquired ISO14001 certification in September 2002.
It is located east of Lake Biwa, at the so called "east-lake" area. This area requires special environmental preservation consideration to protect Lake Biwa.

Under the environmental policy of "We shall incorporate environmental preservation initiatives into every phase of corporate activity, to contribute to a sustainable, happy and prosperous society", we engage in environmental management activities at all three of our business establishments, the head office, Toyosato factory and Hatasho factory, to achieve environmental targets.

Priority Items

1 Environmentally Friendly Products

Each of our customers, the automobile manufacturers, demands we stop using substances with adverse environmental impact and develop alternatives for these substances. We were able to meet these requirements by discontinuing the use of these substances and using alternative substances, thus producing halogen-free polyvinyl insulated cables.

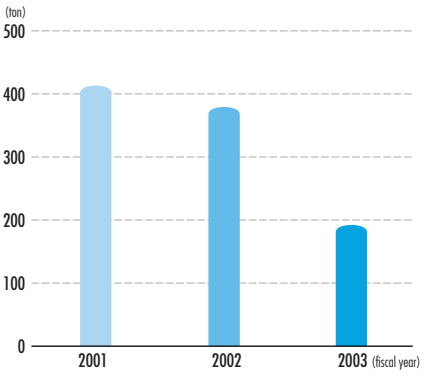
2 Energy Conservation and Recycling

We engage in energy conservation activities by targeting electric power, crude oil and kerosene, and in recycling activities by mainly targeting copy papers.
We are saving energy, by temperature control of air conditioners and heaters, encouraging turning off of PCs and lightings when they are not used. We also applied insulation coating on the roof of the head office, and shifted some compressors to inverters.
We are also striving to reduce the amount of copy papers by using the unused side of used papers and encouraging double sided copying.

3 Reduction of Industrial Waste

We reduced industrial waste by around 54% over three years by curtailing waste generation in the manufacturing process and administrative work as much as possible, and recycling papers, metals and cardboard through thorough sorting.
The chart below shows our performance of reduction in industrial waste.

■ Waste generation trends



▲Echi Clean-up Activities : events at Hatasho town.

4 Contributions Activities to Local Community and Society

Every March, Inukami River Cleaning Activities are carried out in the town of Koura where our head office is located. In May Uso River and Street Clean-up Activities are carried out in the town of Toyosato where Toyosato factory is located. In August, Echi Refreshing Activities are carried out in the town of Hatasho where the Hatasho factory is located to keep the local area clean. We participate in these events, assist in local activities and interact with the local people.

Our Future Activities

We will further improve the environmental management system as well as promote environmental preservation by continuing the already, ongoing activities.

In the future, we will develop green procurement schemes which Furukawa Electric is currently promoting. In addition, we aim to establish a system for implementation and management of IMDS (International Material Data System) and LCA (Life Cycle Assessment) as requested by automobile manufacturers under instruction of the Safety, Environment and Quality Promotion Department and the Automotive Products Division.

Furukawa Automotive Parts Inc.

Head Office :
1000 Amago, Koura Town, Inukami County, Shiga
Number of Employees : 635
Factory : Toyosato Factory
380 Takanose, Toyosato Town, Inukami County, Shiga
Hatasho Factory
416 Higashide, Hatasho Town, Echi County, Shiga
U R L : http://www.furukawaap.co.jp/

Enquiries
Head office ISO Promotion Department
(EMS Secretariat)
TEL +81-749-38-4817 FAX +81-749-38-4180

Activities of Affiliated Companies

Riken Electric Wire Co.,Ltd

History

We started operations under the name of Riken upon the acquisition of a license to use patents concerning enameled insulated wires in 1934. Since then we have developed businesses centering on magnetic wires, various cables, stainless steel wires, processing of coils and solder plated wires. We are currently developing products that meet this age's demands, such as optical electronics components and electronics components. We have exhibited solid performance in home appliances, electronics and information equipment, communication equipment and their infrastructure business.

Environmental Preservation Activities

We develop our business, with the recognition that preservation of the global environment is the most important aspect in our society and engage in environmental preservation activities. The basic aim is that we use resources effectively for improvement of current life standards of mankind and its future, with the vision of making the company an environmentally friendly company.

Ichikawa Factory, Shirane Factory and Ichijima Factory acquired ISO14001 certifications in March 2000, August 2000 and February 2004, respectively. For external issues, we have concluded an environmental agreement with local governments and received certification of green procurement from customers. We are pursuing improvement in the following areas at each site and product level.

▲Commemorative plating to acquire incentives on use of patents

▲Planting lawn on the parking area in front of the main gate of Shirane Factory

Priority Items

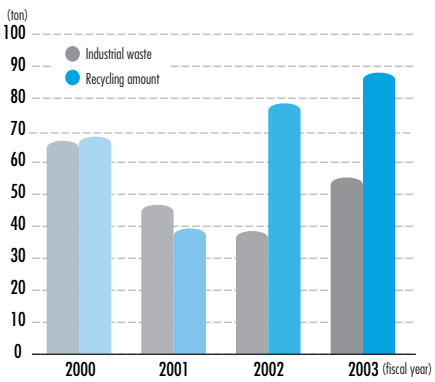
1 Energy Conservation

We installed a cogeneration system at the Shirane Factory, which provides around 70% of total electric power from 1989. We also use steam, generated from boilers, for ventilation inside the factory. In this system, steam is used as a cooler using an absorption chiller in the summer and as a hot water heater in the winter.

2 Reduction of Waste and Promotion of Recycling

We have pursued reduction of waste and promoted recycling in all factories, which resulted in waste reduction by around 15% and attained 130% in recycling rate in actual achievement for the past three years.

■ Yearly Trends of Waste Amount and Recycling Amount



3 Eco-Product Development

In the cable division, we have shifted almost 100% to NF, succeeding in eliminating lead in almost all products. In addition, we have realized high quality and low price in solder-plated wires for electronic components through a hot-solder-dipped coating method which is our own development. We are also the first to commercialize lead-free solder plated wires, attaining almost a 70% shift to NF.

▲Lead-free solder-plated wires

Riken Electric Wire Co.,Ltd

Head Office : 12-22 Tsukiji 1-Chome, Chuo-ku, Tokyo
Number of employees: 294
Factory : Shirone Factory
840-1 Kamihachimai, Shirone City, Niigata
Ichikawa Factory
17-12 Shiohama 3-Chome, Ichikawa City, Chiba
Ichijima Factory
387-1 Aza Tsujinokai, Chokushi, Ichijima Town, Hikami County, Hyogo
Electronics Components Division
357 Oaza Kosudo, Kosudo Town, Nakakanbara County, Niigata
URL : http://www.rikensen.co.jp/

Enquiries and further information
Ichikawa Factory Environmental Committee
TEL +81-47-397-2131 FAX+81-47-396-7572

Progress in Environmental Management

1972 "Company-Wide Regulations for Pollution Prevention" formulated

1974 Environmental Control Department established
Energy-conservation Team started

1989 Team for Reduction in use of specified CFCs started

1992 Renamed "Team for Reduction in Use of Specified CFCs" to "Team for Reduction in Use of Ozone Layer Depletion Substances"

1993 "Basic Framework for Protecting the Global Environment" formulated (Furukawa Electric's voluntary plan for environmental preservation)

1994 Committee for Company-Wide Promotion of Energy Conservation established

1996 Specified CFCs and trichloroethane completely eliminated from the company


Display at Eco-Fair Ichihara

1997 Team for Promotion of Reduction in Industrial Waste started

1998 "Furukawa Electric Basic Environmental Policy" formulated
Central Committee for Environment Management established
Committee for the Development of Environmentally Friendly Products established
Chiba Works acquired ISO14001 certification
Mie Works acquired ISO14001 certification
"Company-Wide Regulations for Environment Management" formulated revising "Company-Wide Regulations for Pollution Prevention"

1999 Safety, Environment and Health Promotion Department started incorporating Environment Control Department and Safety Control Divisions

2000 Ecology and Energy Laboratory established
Liaison Meeting with Affiliated Companies started
Environmental Report began to be issued
Meeting of Environmental Personnel started
Hiratsuka Works acquired ISO14001 certification
Osaka Works acquired ISO14001 certification
Kambara Works acquired ISO14001 certification

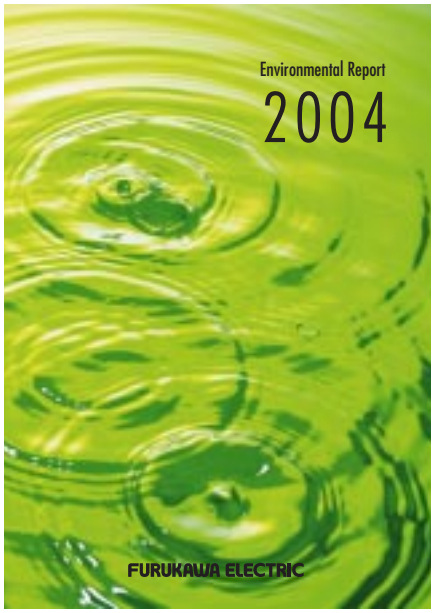

Booth at Yawata Coastal Area Fair

2001 Medium-Term Plan for Environment Preservation Activities 2002 formulated (for 2001-2002)
Shinagawa Works acquired ISO14001 certification
Environmental Accounting started to be disclosed


Ecology and Energy Laboratory

2002 Nikko Works(Kiyotaki District) acquired ISO14001 certification
Fukui Works acquired ISO14001 certification
Yokohama Laboratories acquired ISO14001 certification
Oyama and Shiga Works acquired ISO14001 certification
Green Procurement Preparation Committee established

2003 "Furukawa Electric Basic Environmental Policy" revised
Medium-Term Plan for Environment Preservation Activities 2005 formulated (for 2003-2005)
Green Procurement Executive Committee established
All Works including The Nikko Works (Sheet Plant) acquired ISO14001 certification
Liaison Meeting of Consolidated Environmental Management started
The first seminar for executives of consolidated companies



About a cover

We imagine harmony with nature and the establishment of a recycling society. In order to be a reputable company in society, Furukawa Electric aims for the realization of a sustainable society.

THE FURUKAWA ELECTRIC CO., LTD.

Safety, Environment and Quality Promotion Department

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