



Environmental and Social Report

*2006*

**FURUKAWA ELECTRIC**

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## Business Bases Covered by this Report

### 1. Furukawa Electric

- ①Chiba works ②Nikko works ③Hiratsuka works  
④Mie works ⑤Osaka works ⑥Yokohama works

### 2. Affiliated companies

Please refer to the List of Companies Participating in the Liaison Meeting for Consolidated Environmental Management

- ※1) In this report, when "Furukawa Electric", or "the Company" is mentioned, it refers to the business bases of item 1 above. When "the Furukawa Electric Group" is mentioned, it refers to the business bases of items 1 and 2 above (excluding pages 26 to 28).
- ※2) The affiliated companies covered in this report have been changed from the previous report due to changes in the group companies. Data is provided for newly covered affiliated companies for fiscal 2005 and for affiliated companies that have been traditionally covered for fiscal 2004 and earlier.

## Period Covered

From April 1, 2005 to March 31, 2006

Information regarding past events and activities for fiscal 2006 is partially included.

## Editorial Policy

This brochure reports mainly on the environmental preservation activities of the Furukawa Electric Group for fiscal 2005. The fiscal 2006 version has been re-named the "Environmental and Social Report," with a further emphasis on social involvement.

In compiling this report, we have made reference to the Environmental Reporting Guidelines (Fiscal Year 2003 version) published by the Ministry of the Environment, as well as the Sustainability Reporting Guidelines published by the GRI (Global Reporting Initiative).

## Enquiries and further information

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## List of Companies Participating in the Liaison Meeting for Consolidated Environmental Management

Company Name	Environmental Accounting
Access Cable Company	
Asahi Electric Works Co., Ltd.	○
Inoue Manufacturing Co., Ltd.	○
NTEC Ltd.	○
F-CO Co., Ltd.	○
FCM Co., Ltd.	
Okano Electric Wire Co., Ltd.	○
Okumura Metals Co., Ltd.	○
Kyowa Electric Wire Co., Ltd.	
Sunsunny Industry Co., Ltd.	
Shodensha Co., Ltd.	○
Seiwa Giken Inc.	○
Totoku Electric Co., Ltd.	○
T.H. Furukawa Electric Co., Ltd.	
Nikkei Kakoh Co., Ltd.	
Nippon Foil Mfg. Co., Ltd.	○
Furukawa Electric Industrial Cable Co., Ltd.	
Furukawa Infonet Products Co., Ltd.	

Company Name	Environmental Accounting
FITEC Corporation	
The Furukawa Electric Engineering Service Co., Ltd.	○
Furukawa Automotive Parts Inc.	○
Furukawa Circuit Foil Co., Ltd.	○
Furukawa Sangyo Kaisha, Ltd.	
Broad Wireless Corporation	○
Furukawa Industrial Plastics Co., Ltd.	○
Furukawa Precision Engineering Co., Ltd.	
Furukawa Engineering & Construction Inc.	○
The Furukawa Battery Co., Ltd.	○
Furukawa Logistics Corporation	
Furukawa Techno Material Co., Ltd.	○
Furukawa Life Service Inc.	
Miharu Communications Inc.	○
Yamada Keikinzo Co., Ltd.*	
Riken Electric Wire Co., Ltd.	○
Furukawa-Sky Aluminum Corporation	○
Zaikoo Co., Ltd.	

Environmental Accounting... ○ : Implements environmental accounting described in this paper

\*Yamada Keikinzo Co., Ltd. is no longer a part of the list as of July 2006.



# Message



**Hiroshi Ishihara**

President , Chief Executive Officer & Chief Operating Officer



**The Furukawa Electric Group will actively implement environmental and social activities as “an earth-friendly company” that aims for “innovation.”**

Furukawa Electric has continued to experience harsh conditions, and under these conditions we have implemented various measures, aiming to be a creative company that makes its presence felt in the world. We embarked upon efforts to make proper adjustments in our workforce, decrease increase-bearing debt, improve profitability by structuring the mechanism of all group companies, reduce costs and decrease inventory. The progress of our improvement efforts, together with favorable market conditions and turn of the economy, has led to a steady enhancement in our performance. In addition, we will be focusing on strengthening our manufacturing abilities, managing business risks, creating new businesses and customer development. Companies are increasingly expected to take social responsibility. Furukawa Electric, as members of society, will fulfill our social responsibility not only through environmental activities and complying with laws, but also by providing products and contributing to society.

In terms of environmental activities, our slogan is “an earth-friendly company.” Aiming to realize a “recycling-oriented society,” Furukawa Electric has continuously worked in cooperation with its associated group companies to reduce environmental impact and increase its resource capabilities once it has clearly set the standards and timings that it seeks to achieve. From the perspective of risk management, we have managed the chemical substances contained in our products and carried out ground pollution investigations.

With the aim of fulfilling our social responsibilities, Furukawa Electric has set up a Compliance Committee, ensuring that employees comply with laws and regulations and that they follow a code of conduct. We have made efforts to go beyond simply abiding by the laws to strengthen the trust of the community by contributing to the local community and promoting the safety and health of our employees by such means as taking measures against asbestos. In particular, we have made significant improvements in the management of working hours, undertaking a radical conceptual reform.

Our improved performance has led us to shift from “defensive” to “offensive” management, and we are aiming for “innovation” in technology and reforms in business, production and management. In doing so, our environmental and social efforts are extremely crucial in gaining the trust of our customers. We have reported on the content of our activities in our Environmental Reports, but this year the title has been changed to “Environmental and Social Report,” and we have enhanced the sections on social responsibility. It is our hope that you will gain an understanding of our activities and continue to offer your support and cooperation.

## Company Policy of the Furukawa Electric Group

### [Basic Management Policy]

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

### [Our Vision]

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

### [Management Policy]

- Practice of responsive management
- Orientation toward profit
- Creation of new products and market opportunities
- Growing development of global management
- Continuous promotion of structural reform
- Strengthening of consolidated management

### [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 the 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.

Furukawa Electric and its affiliated companies have continuously promoted environmental preservation activities, aiming to achieve a “recycling-oriented society.” With continued business development as our objective, we are also promoting comprehensive cost reduction activities. We have comprehensively worked to reduce production costs and improve quality in conjunction with efforts related to production activities such as applying technology in our plants, procuring materials, and safety management. Of these, we recognize that environmental activities are extremely crucial due to the heightened awareness of society and our customers.

In developing new products, we have called our environmentally friendly products ECOLINK, and consider them our pillars for research and development in increasing profits and exercising our growth potential. Once again this year, we jointly developed a recycled bobbin using optical cable waste materials with The Tokyo Electric Power Company, Incorporated. We expect the high-performance reflow oven that uses lead-free solder to promote lead-free

products. As for halogen-free electric wires, we were able to significantly increase their strength, contributing to the increase of halogen-free products through the expanded use of these wires. In the future, we will continue with the development of environmentally friendly products that are “creative and capture new markets.”

At manufacturing sites we have continuously carried out activities to reduce the impact on the environment. As something that particularly contributes to profits, we have aggressively embarked upon efforts to reduce waste disposal costs. We have reduced the total amount of waste products by sorting and finding new uses for reused waste and eliminating wastefulness, and we have also decreased processing costs by promoting value processing. In fiscal 2005, we achieved a profitability of 43 million yen for the first time, due to the results of our abovementioned efforts and the rise in scrap copper prices. We will continue to work to reduce waste, the emission of greenhouse gases and chemical substances. Further, 2005 saw an intense interest in the health hazards of



**Kosaku Nakano**  
Director in charge of environment  
Chief Officer, Technology & Production  
Director, Member of the Board

*Kosaku Nakano*

asbestos, and we at Furukawa Electric took an immediate, emergency response to determine the use of asbestos in products, health surveys of our employees, and whether or not asbestos was used in our factory facilities and buildings, following up with the necessary measures. There is the risk of a variety of issues arising with regards to safety and the environment, and we intend to operate with a heightened sensitivity to these issues.

We present here the report for 2006, which we ask our stakeholders to read and share with us their frank opinions that we might deepen our mutual understanding.

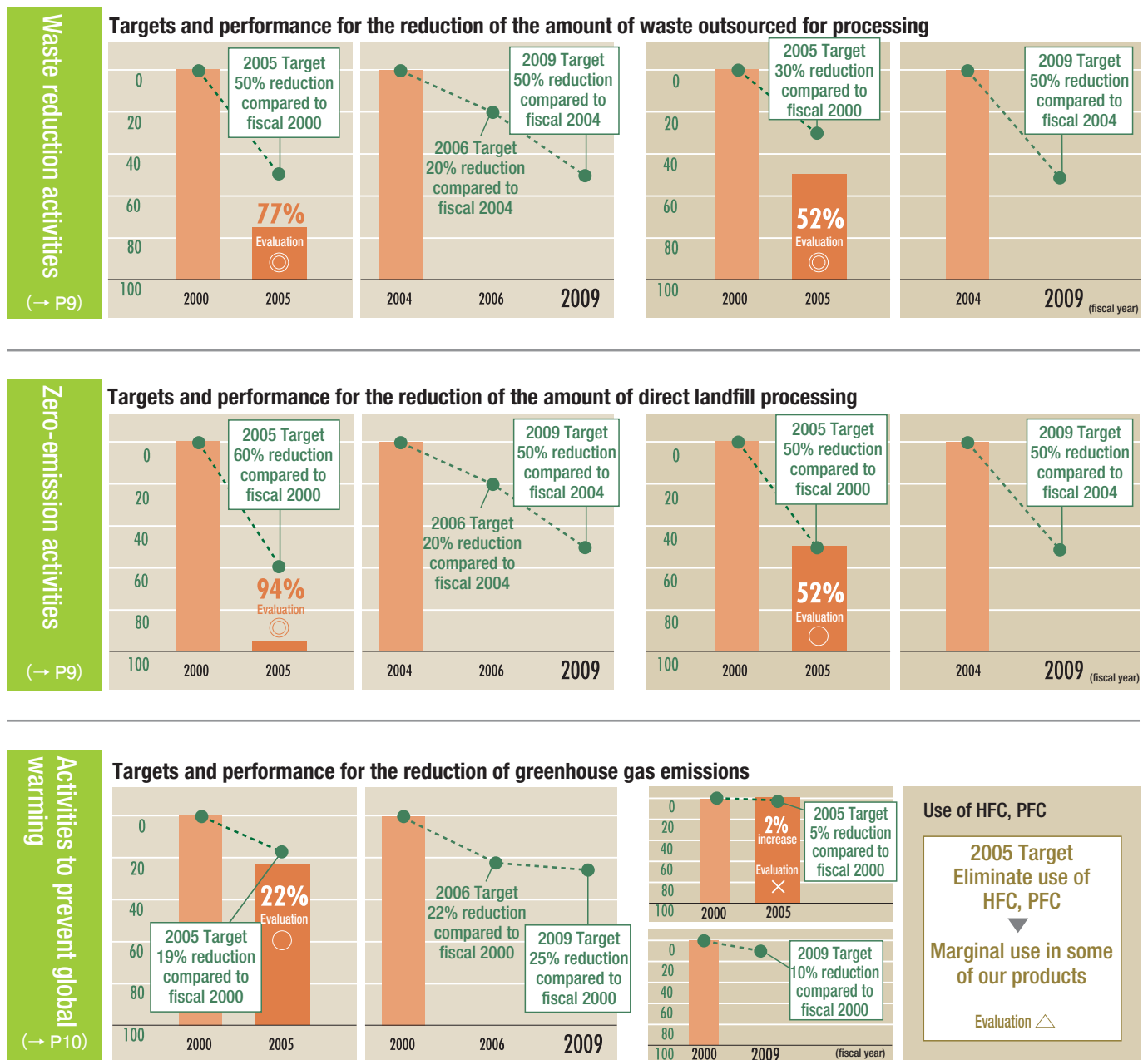
## Targets and Performance of Environmental Management

Furukawa Electric has set the Medium-Term Plan for Environmental Preservation Activities 2005 and implemented environmental preservation activities from fiscal 2003 to fiscal 2005. In addition, Furukawa Electric and its group have set common activity targets for consolidated environmental management to promote these activities. For the performance for fiscal 2005, the final fiscal year of the plan, although the targets for the reduction of the emission of greenhouse gases were not satisfied, we were able to attain the general targets. Building upon these, we have formulated the Medium-Term Plan for Environmental Preservation Activities 2009 as our next medium-term targets.

---●--- Target    Performance

### Targets and Performance of Furukawa Electric

### Targets and Performance of Consolidated Environmental Management



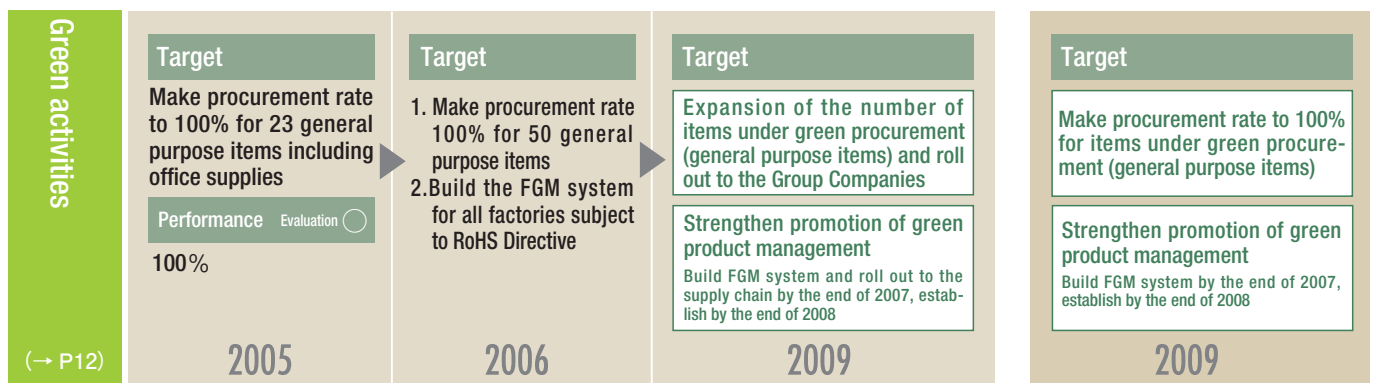
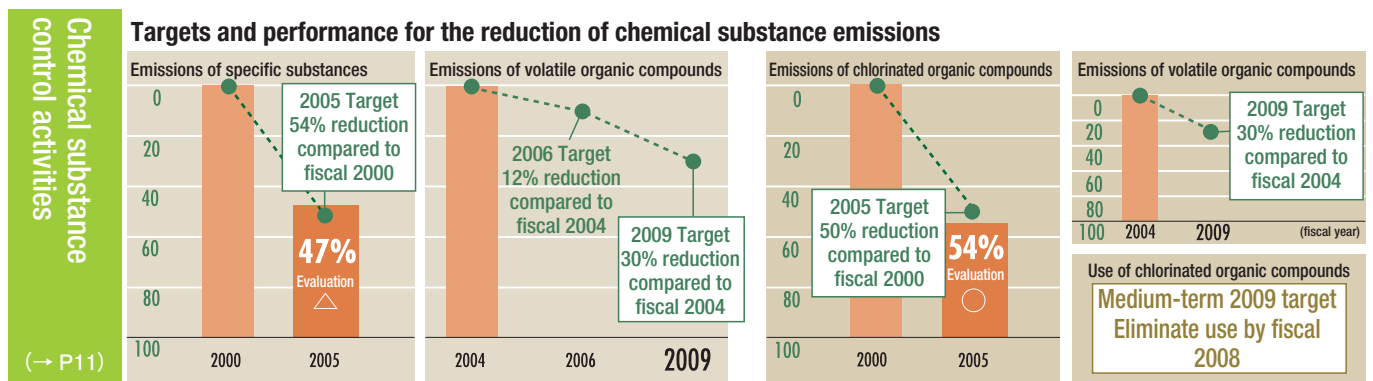
## Fiscal Year Targets

Furukawa Electric set the annual target of “Priority Environmental Preservation Activity Targets,” and these targets were employed in the objective, targets and implementation programs under the environmental management system for the individual business bases to promote these activities. Our affiliated companies also set their unique targets with respect to the common activity targets of the consolidated environmental management and promoted their activities.

Evaluation Standards : ● Substantially achieved ○ Achieved △ Slightly underachieved × Underachieved

### Targets and Performance of Furukawa Electric

### Targets and Performance of Consolidated Environmental Management



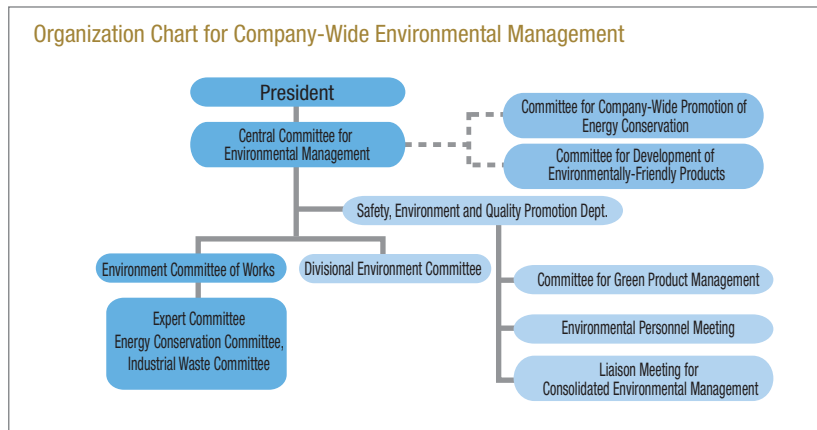
\*The FGM system is a mechanism to manage the content of regulated hazardous substances for Furukawa Electric products.



## Environmental Management System

### Environmental Management Organization

At Furukawa Electric, the Director in charge of the environment acts as the Chairman of the Central Committee for Environmental Management, which has been set up to promote environmental preservation activities for the entire company. In addition, Furukawa Electric is promoting the Group's environmental preservation activities in conjunction with its affiliated companies at the Liaison Meeting for Consolidated Environmental Management. As we believe that schemes based on ISO14001 would be effective for carrying out environmental preservation activities at the individual business bases of Furukawa Electric and its affiliated companies, we have been working towards acquiring certification. Of our affiliated companies, two companies newly acquired certification (Sunsunny Industry in December 2005 and



Furukawa Precision Engineering in July 2006), and all of Furukawa Electric's business bases and consolidated environmental companies

have acquired ISO14001 certification.

### Conducting Environment Related Education

The Furukawa Electric Group is conducting a variety of educational sessions to heighten awareness of the environment among our employees.

#### ● ISO14001 Related Education

Two seminars were conducted by the company's instructors to train internal environmental auditors, which included participants from our affiliated companies. 45 internal auditors were trained at these seminars. We also held two instructional seminars on the revised version of ISO14001. In addition, we held a



seminar on positive environmental aspects conducted by external instructors. There were 27 participants at this seminar, mainly from the EMS Office of the individual business bases and affiliated companies. Brush-up seminars for internal auditors aimed at our affiliated companies were also held.

#### ● Environment-related Education

We conducted education sessions on environmental problems in general for a total of 50 of our new employees and second-year employees. In addition, at each works and workplace, we conducted as necessary a general environmental education session at the time when employees are assigned to a division, and conducted special education sessions relating to specific work.

#### ● Environmental Seminar for Managers

In order to further promote awareness among managers about environmental activities, we held an environmental seminar for managers of consolidated companies (the third such seminar). As instructors, we invited the managers of the environmental divisions of major domestic companies to lecture on the topic of "Environmental Management of Leading Global Companies." A total of 85 top officials, including the President, executive directors, members of the Central Committee for Environmental Management and personnel in charge of environmental management at works of Furukawa Electric, and presidents and other managers of affiliated companies participated in this lecture.

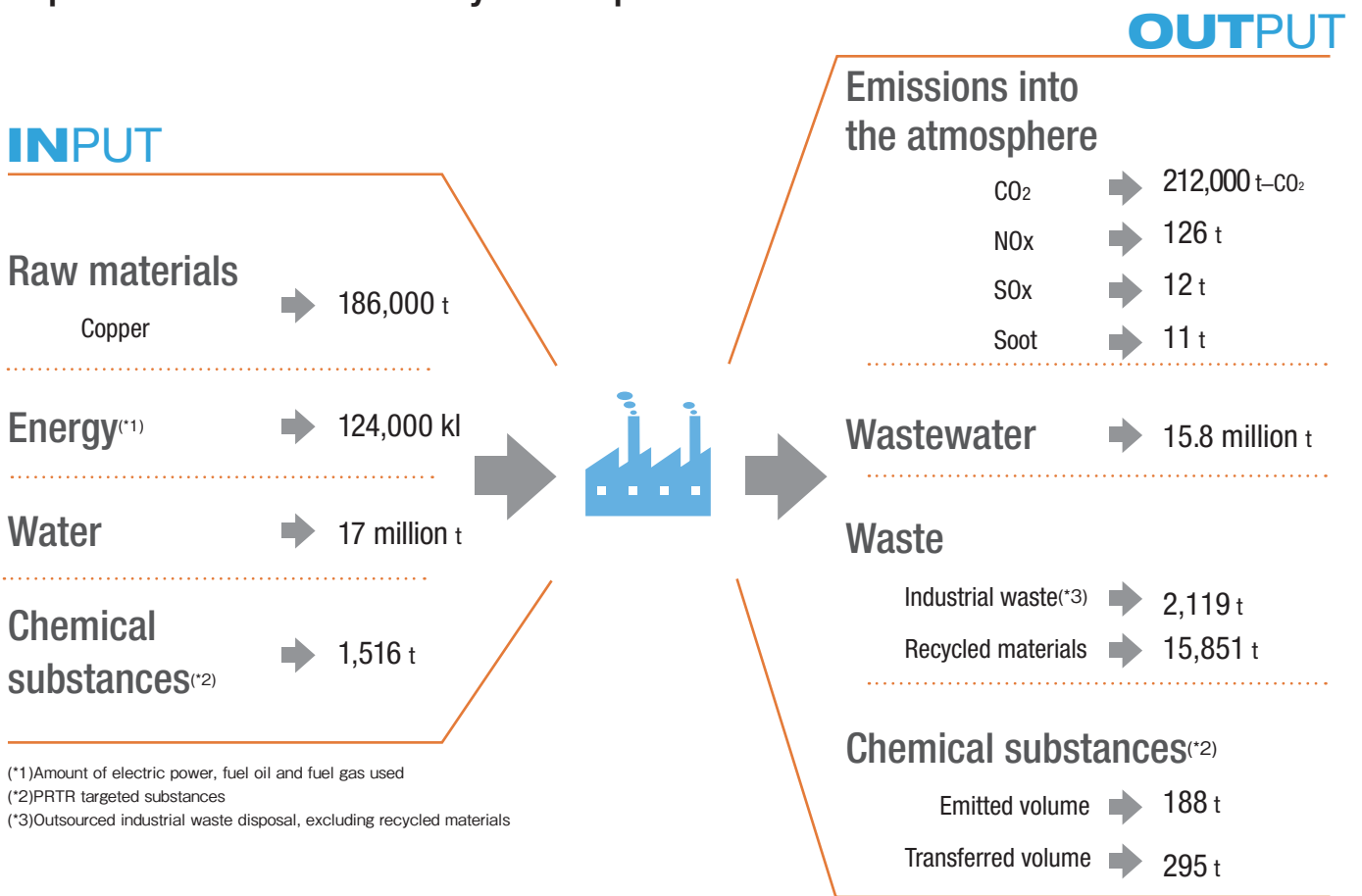




# Business Activities and Their Impact on the Environment

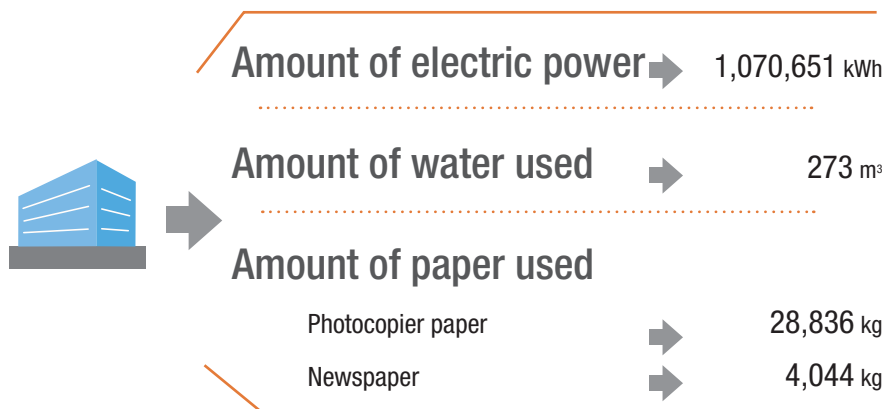
Furukawa Electric provides products by purchasing a variety of parts and raw materials, and by using energy, including water and electric power, and chemical substances. We are working on reducing the adverse impact on the environment produced by these activities.

## Impact on the environment by the six production base works



## Impact on the environment by non-production bases

Furukawa Electric has grasped the impact on the environment caused by the non-production bases of its Head Office and three Branch Offices.



The non-production bases of our Head Office and Branch Offices are promoting power savings and resource savings. As power saving measures, lights in rooms such as unused conference rooms are turned off and air conditioning units are set at an appropriate temperature. As resource saving measures, we promote the sorting of waste and the reuse of items such as photocopier paper and files, but due to the heightening of operations this year, the amount of paper used has increased from the previous year.

## Zero-Emission Activities

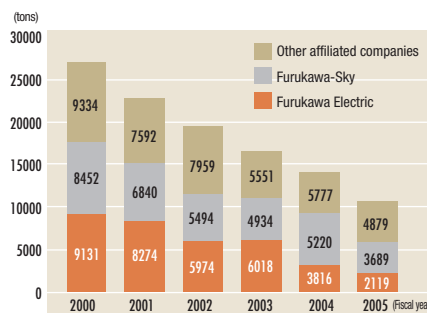
The Furukawa Electric Group has started its activities to reduce outsourced industrial waste disposal from 1993, and has promoted zero-emission activities of waste since 2001. At the Furukawa Electric Group, zero-emission activities are defined as “activities to reduce the industrial waste commissioned to outsourced disposal that is transported from plants directly to landfill spots for final disposal.” We have promoted the recycling of waste acid and sewage as well as the reuse of cleaning liquids.

### Performance in Fiscal 2005

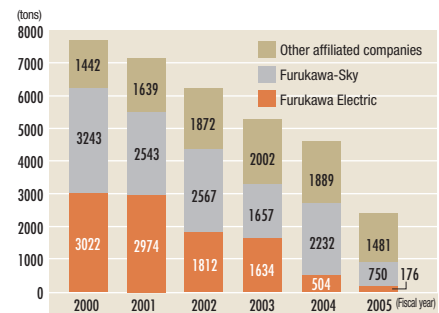
**Furukawa Electric** We reduced outsourced industrial waste disposal by 77% compared to fiscal 2000, attaining the fiscal target of a 50% reduction. In addition, we reduced the volume of direct land disposal by 94% compared to fiscal 2000, substantially exceeding the fiscal target of a 60% reduction.

**Affiliated Companies** We reduced outsourced industrial waste disposal by 52% compared to fiscal 2000, attaining the fiscal target of a 30% reduction. In addition, we reduced the volume of direct land disposal by 52% compared to fiscal 2000, attaining the fiscal target of a 50% reduction.

Outsourced Disposal of Industrial Waste



Direct Landfill Disposal



### Activities of QC Circle

At the production sites, we have made environmental efforts as one of our objectives through our QC Circle activities. The circle at the Mie Optical Fiber Plant has undertaken to increase the percentage of bobbin reuse and have seen a positive effect. In the past, bobbins have been discarded, and they pinpointed the cause to develop appropriate measures. In

uncovering the cause, they utilized the “Repetitive why analytical Method,” and all of the members of the circle put their heads together. As a result of their efforts, the percentage of reuse increased to approximately 80% from approximately 20%. This effort was awarded the gold prize at the company-wide QC Circle presentation.



### Reducing Waste Disposal Costs

As part of the Furukawa Survival Plan, we consider it crucial that environmental preservation activities directly contribute to management, and we have taken the reduction of waste disposal costs as an activity target. In fiscal 2001, there was an expenditure of over 300 million yen for landfill and intermediate disposal. While decreasing the volume of waste itself by promoting reuse and eliminating wastefulness on the line, we emphasized



the thorough sorting of waste to create value, making it possible to sell it for value. We saw a profit of 43 million yen due in part to the influence of the heightened price of scrap copper in addition to these effects.

### Reducing the Percentage of Final Disposal

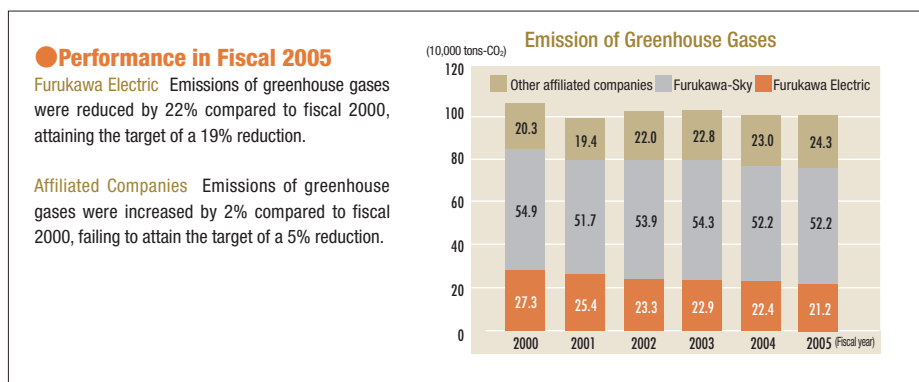
At the Chiba Works, we have undertaken a five-year plan from fiscal 2002 with the target of “achieving zero-emission by reducing landfill waste.” Zero-emission is defined as the state where “the percentage of waste for final disposal (final disposal percentage) to the total

waste volume is less than 1%.” We have thoroughly implemented simple and steady measures such as promoting the through management of waste sorting, promoting the creation of value, reducing the amount of office paper (going paperless, using backing paper) and

campaigns to encourage employees to take home their personal garbage. As a result, the final disposal percentage dropped to 0.2%, and the target was achieved one year ahead of the original schedule.

# Efforts to Prevent Global Warming

The Furukawa Electric Group has been taking part in energy conservation activities for some time in order to prevent global warming. At our plants, we have been reevaluating lighting, installing energy conservation equipment and switching fuels. We have also been turning off unnecessary lighting and reevaluating the temperature settings for our air conditioning and heating systems in our offices.



## Reducing the Amount of Heavy Oil Used

Furukawa Nikko Power Generation Inc., one of our consolidated companies, uses hydraulic power to generate electricity, supplying it to the Nikko Works. Furukawa Nikko Power Generation was handed over from Furukawa Co., Ltd. in September 2003. Prior to the handover, the Nikko Works were supplied with electricity from this electric power plant, but they were also using electricity purchased from Tokyo Electric Power Company and diesel generators within the works. On the occasion of the handover

in 2003, the mode of electricity being used was reviewed, and it was decided that external sources of electricity would be used during periods of water shortage; diesel generators would be used in emergency situations; and only the electricity from the hydraulic power of Furukawa Nikko Power Generation would be used under normal circumstances. As diesel generators were discontinued, the heavy oil necessary to operate them were no longer used, and the resulting reduction in CO<sub>2</sub> emissions amounted

to a reduction of 16,000 tons per year. Further, we also began supplying electricity to Furukawa-Sky's Nikko plant, which has not been supplied with this electricity prior to the handover, newly laying down power lines.

\*Values calculated by multiplying the total amount of electricity including this amount due to hydraulic power generation by the CO<sub>2</sub> conversion factor are used as indicators of the volume of greenhouse gas emissions.

## Switching to City Gas

At the Hiratsuka Works, we had traditionally been using liquefied petroleum gas (LPG). LPG was supplied by a tank lorry and then sent to the production facilities from a storage tank set up within the works. This required consideration for safety and environmental issues under the regulations of the High Pressure Gas Safety Law. Meanwhile, city gas (liquefied natural gas) has the benefit of producing less carbon diox-

ide than LPG when it is burned. If it is possible to get a supply of gas through pipes from Tokyo Gas Co., Ltd., it would be possible to safely change the fuel with only a slight investment, and we considered switching to city gas. We implemented the switching as city gas pipes had been set up close to the works and it was not necessary to make any major renovations in the production facilities. As a result, there

has been a 448 ton reduction in carbon dioxide per year. In addition, we have seen benefits for managerial aspects, as there is no longer any need for storage tanks or vaporizers, there are no transfers from lorries, and we have been able to decrease the risk of leakage when the valves are not operating well.

## Efforts in Logistics

The Furukawa Electric Group has worked to reduce the impact on the environment due to logistics-related matters, reducing the amount of packaging material, reusing and recycling cable drums and using joint transport.

Following upon fiscal 2004, we have continued to conduct activities to reduce the emissions coefficients per transported product ton kilo for automobile NO<sub>x</sub> emissions. We have at-

tempted to reduce CO<sub>2</sub> and NO<sub>x</sub> emissions from vehicles by increasing the use of mixed loads and large vehicles and reducing the number of vehicles used.

With the revision of the Law Concerning the Rational Use of Energy, new responsibilities have been included for shippers. In preparation for the law taking effect from April 2006, we made preparations to get a grasp on our ton

kilo data including our affiliated companies. At Furukawa Electric and Furukawa-Sky, we are proceeding with the task of computing the necessary volume of energy use, as they are designated as specified shippers with a transport volume of over 30 million ton kilos a year.

## Chemical Substance Management

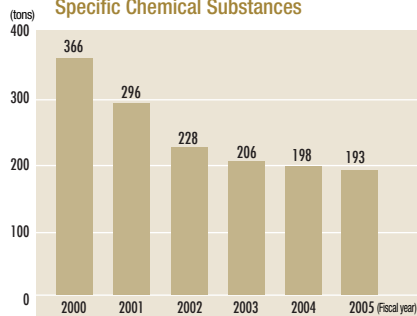
At the Furukawa Electric Group, we are aiming to eliminate the use of three substances among chlorinated organic compounds, tetrachloroethylene, trichloroethylene and dichloromethane. As Furukawa Electric has achieved excellent results, the Company is also working on reducing emissions of three substances (Furukawa Electric's specific chemical substances) that are volatile organic compounds: toluene, xylene, and ethylbenzene.

### Performance in Fiscal 2005

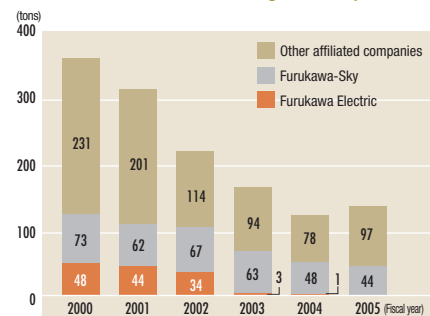
**Furukawa Electric** Emissions of Furukawa Electric's specific chemical substances were reduced by 47% compared to fiscal 2000, slightly less than the fiscal target of a 54% reduction.

**Affiliated Companies** Emissions of chlorinated organic compounds were reduced by 54% compared to fiscal 2000, achieving the fiscal target of a 50% reduction. At the start of fiscal 2005, eight companies were using these substances, but two companies eliminated their use of these substances during the year, presently leaving six companies.

Emission of Furukawa Electric's Specific Chemical Substances



Emission of Chlorinated Organic Compounds



### Appropriate Management of Chemical Substances

For chemical substances used in the production process, we manage them according to their toxicity, checking the characteristics of the substances and applicable laws on the MSDS (Material Safety Data Sheet). We also get a grasp on the amount of these substances that is used and report these amounts in accordance with the PRTR Law\*.

\*Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management

Release and Transfer Volume of PRTR Substances

Substance No.	Name of substance	Handling volume	Emitted volume	Transferred volume	Neutralized volume
25	Antimony and its compounds	66.4	0.0	4.8	0.0
40	Ethylbenzene	8.6	0.0	0.0	8.6
63	Xylene	22.5	5.7	2.5	14.3
64	Silver and its water-soluble compounds	1.2	0.0	0.0	0.0
67	Cresol	324.6	0.2	0.2	323.8
108	Inorganic cyanide compounds	19.9	0.0	0.0	19.9
172	N, N-dimethylformamide	86.8	0.6	0.2	85.3
197	Decabromodiphenyl ether	199.6	0.0	14.4	0.0
207	Copper salts (water-soluble)	13.0	0.0	0.3	0.0
227	Toluene	538.4	181.1	269.3	85.6
230	Lead and its compounds	14.2	0.0	0.0	0.0
231	Nickel	3.2	0.0	0.0	0.0
232	Nickel compounds	8.7	0.0	0.1	5.2
253	Hydrazine	5.2	0.0	0.0	5.2
266	Phenol	196.7	0.0	0.1	196.1
272	bis (2-ethylhexyl) phthalate	3.0	0.1	0.1	0.0
283	Hydrogen fluoride and its water-soluble salts	2.4	0.0	2.1	0.1

\*Targeting substances with a handling volume of 1 ton or more at the Furukawa Electric works (0.5 tons or more for specific first category chemical substances)

### Responding to Regulations Concerning the Emissions of Volatile Organic Compounds

Furukawa Electric has conducted activities to reduce the volume of emissions of Furukawa Electric's specific chemical substances since fiscal 2003. Toluene accounts for 95% of these targeted substances, and is used as a product cleanser and in floor paints. As reduction measures, we have implemented a review of the content of cleaning agents, improved our washing tanks, and switched to using water-soluble paints. In addition, improvements in quality have reduced the number of times that repeated cleansing has been needed. Mean-

while, Air Pollution Control Law was revised in August 2005, and new regulations concerning all volatile organic compounds (hereinafter VOC) were incorporated. These were put into effect from April 2006. Furukawa Electric does not currently have any facilities that fall under these legal regulations, but we will conduct reduction activities in accordance with the self-imposed regulations of The Japanese Electric Wire & Cable Makers' Association and the Japan Copper and Brass Association with which we are affiliated. When we surveyed the

use of VOC, we found that toluene emissions, which we have traditionally set as the target of our efforts, account for 59% of the total VOC emissions, and emissions of isopropyl alcohol, which were not targeted, account for a large percentage at 33%. As these two substances combined account for 92%, we drew up a plan to conduct measures particularly centered on the processes that handle these two substances and incorporated it into our mid-term targets (please refer to page 6 for target values).



# Creating Environmentally Friendly Products

Aiming for the creation of environmentally friendly products, Furukawa Electric is carrying out the green procurement of purchases, green product management, and the development of environmentally friendly products.

## Green Product Management Activities

With the strengthening of environmental laws and regulations regarding toxic and harmful substances, customers not only are demanding a guarantee that we do not use regulated harmful substances or use products that contain them, but also are strongly requesting that we would establish a control system to oversee the chemical substances included in products as well as the presentation of evidence based on analyzed data. Furukawa Electric established the Committee for Green Product Management in February 2005, conducting the cross development of customer requests to each business division, and furthering the sharing of information across divisions. Each committee member took on a central role in the effort to construct a management system.

In fiscal 2005, we studied the content of

regulated harmful substances for all Furukawa Electric brand products, and created a "Registration Master for all Green Products and Plants." Each business division developed an execution plan for constructing a management system, and it was decided that these would move forward in phases starting with plant divisions that produce high priority regulated products.

At plant divisions, the mechanisms of the existing ISO9001 and ISO14001 were utilized and improvements were made such as the introduction of tests using analytical instruments to ensure that regulated harmful substances were not mixed in or distributed at the respective stages from the receiving of raw materials and parts, assembly and production, and product shipment. We also received requests

from our main customers to check the control system via document examination, and we conducted an internal audit of target plants for three business divisions and two companies. For the other business divisions, we conducted individual informative sessions and interviews to increase the awareness of the importance of controlling the chemical substances included in products and the thorough application of company-wide targets.

In the future, we will continue to fully respond to customer audits and conduct internal audits of Furukawa Electric's individual business divisions. We will also continuously conduct information sessions, instruction, and audits for constructing a management system in order to develop it for our affiliated companies and business clients.

## Activities of the Automotive Products Division

The Automotive Products Division of the Electronics and Automotive Systems Company is continuously working on establishing an environmental impact substance management system in response to requests from automotive manufacturers.

In order to meet customer needs that are increasing yearly, we must respond promptly with increased accuracy, and we have been undertaking the development of an "Environmental Management System" with the objective of making operations more efficient within the company.

We have created a mechanism to conduct environmental assessments at the respective stages of vehicle development from development, design, to mass production. In addition, we have collected the material data and analytical data for the products of our respective suppliers as well as that used in our production



Measurement using fluorescent X-ray analysis

process, and we have strengthened our activities to eliminate or reduce the environmental impact substances according to

requests from automotive manufacturers.

In order to verify the absence of lead, mercury, cadmium, and hexavalent chromium as commissioned in EU's Directive on End of Life Vehicles, we have installed analytical instruments in all of our plants and have started to analyze the products and materials for on-going and under-development products.



Environmental management system screen

## Green Procurement

23 items were selected from office supplies and materials for general use (general purpose items), and we decided to purchase green products for the subject items. After strict evaluation by the purchasing division, we registered only green products into our company purchasing system. It became possible for purchase originators to easily purchase green products, and by the end of fiscal 2005, the rate of procurement was 100%. In the future, in addition to increasing the number of items that

fall under green products, we will expand our purchasing system to our affiliated companies.

Our company's green products are products recommended by the Green Purchasing Net-



work and products with environmental labels.

For products and materials (purchased products) involved with the manufacturing process, we are conducting surveys on the state of environmental management of our suppliers and whether their products contain environmentally regulated substances. We are also checking for the level of environmentally regulated substances in products using MSDS, ingredient charts, and in certain cases using analyzed data.

## Environmentally Friendly Products

At Furukawa Electric, we call products that are harmless at the respective stages from production, use, distribution, and disposal and that have a minimal impact on the environment “environmentally friendly products.” We use our own unique environmental label for these products. Further, we have designated the percentage of sales from environmentally friendly products out of the total sales from new products as the environmentally friendly product percentage. The percentage for fiscal 2005 was 69%.



For specifics on environmentally friendly products, please refer to the following page on the Furukawa Electric website.

<http://www.furukawa.co.jp/enviro/pro/index.htm>

### Halogen-free electric wires with major increases in strength due to new cross-linking technology

#### A new type of halogen-free electric wire The Eco-Ace Plus Series

We have developed a new cross-linking technique in order to meet the customer needs and demands for a major increase in strength while still maintaining a high level of flame retardant and processing capabilities. With this cross-linking technique, we have created an even stronger bond than before between the base resin and the metal hydrate flame retardant material. While continuing to maintain the flexibility and flame retardant capabilities, we were able to give it a high power that was not possible with prior technology.

In terms of the pressure welding and crimping to the connector when it is used as a wire harness, we have confirmed that it has an equal finish and is on par with PVC electric wires, which have superior processing capabilities.

#### Characteristics

- They are highly resistant to external damage.
- They are as easy to process as PVC electric wires.

## Developing Environmentally Friendly Products

Eco-design is a design that minimizes the environmental impact of products at all stages, from the raw materials to production, use, and final disposal. Specifically, it is conducted according to the concept and methods of LCA (Life Cycle Assessment).

In addition to designing materials that satisfy the various regulations that have recently been spreading (like the RoHS Directive), we are promoting development of environmentally friendly products with the following points.

- For electric wires and cables, we are implementing designs that have a minimal environmental impact while reflecting customer demands. Specifically, we are creating them to meet various international regulations and designing them so that they are functionally easy to recycle and reuse. By designing electric wires and cables collected from the market so that they can be disassembled, sorted, and reused with the least impact on the environment, we are contributing to the evaluation at the final stage of LCA.



#### Voices of the development staff

**Yusuke Kuwasaki**  
Eco-Products Department,  
Ecology & Energy Laboratory,  
R&D Division

Since 2000, environmentally friendly products have been the focus of much attention, and most of these are related to energy conservation and are mainly products where the benefits are actually returned to the consumers. When I actu-

- The cycle of collection and effective use for conductors (copper, aluminum) has already been established. For the accompanying resin materials, however, after first considering their use for their former purposes, if these are inappropriate, we will develop the optimal purpose and application and attempt to put them to effective use.
- In the future, we will seek to develop materials derived from plants to replace materials derived from petroleum that is expected to be exhausted in the future. We will also seek to integrate our unique technology that we have developed and accumulated until now, contributing in a real sense to reducing the impact on the earth's environment.
- We will promote the development of products and technologies that meet the requirements for the suppression of gas emissions that lead to global warming based on the Kyoto Protocol as a top priority in all areas. We have actively cooperated with our works (plants) and affiliated companies in their energy conservation, rainwater use, and heat island measures. After establishing the measures on our ground, we will proceed to make proposals to our customers.

ally think from the perspective of a consumer, the reality is that I would make a purchase based more on price than the environment.

In the future, in addition to promoting the development of environmentally friendly products where consumers can receive the benefits, I would like to devote my efforts to create a society where products that are made with the environment in mind can be appreciated as benefits in and of themselves.

- They do not contain the six substances specified in RoHS Directive, halogen substances, antimony, nor phosphorous.
- They meet UL standards and CSA standards.

### Recycled bobbins using optical fiber cables scraps

#### Product characteristics

Recycled bobbins contain over 40% discarded polyethylene collected from removed optical fiber cables for environmental purposes. Normal plastic bobbins use new polypropylene materials, but recycled bobbins use discarded polyethylene to effectively utilize waste materials.

Further, in order to make it possible to reuse them, we have created them with the strength to withstand repeated use and a light weight (half the mass of wood drums) to make transport easier.

Bobbins that can no longer be used due to damage can be crushed and reused as recycled bobbins.



Recycled bobbin

### Recycled duct guard

Traditionally, optical fiber cables have been disposed of as landfill waste after removal, but we discussed recycling discarded optical fiber cables jointly with Nippon Telegraph and Telephone East Corporation and Nippon Telegraph and Telephone West Corporation, making recycled duct guards into a product.

Generally, the recycling of optical fiber cables has not been promoted because of their compound nature with fibers, resin, and metals, making sorting difficult and expensive. We were able to simplify the sorting process,

establishing a production method where raw materials with a variety of substances mixed in could still be molded, making them possible to recycle.

The recycled duct guard protects ducts from the weight of vehicles at the shallowest part of the buried ducts that contain cables. Conventionally, the ducts were guarded by laying concrete on the ducts. Yet it required a great deal of time to lay the concrete and age it, making the construction period long and causing problems such as traffic jams from being unable to free the roads. The recycled duct guard is a product that replaces this concrete guard, and

as it can be guarded simply by covering the ducts with the guard, the construction period is greatly reduced as is the total cost.



Example of the construction of a recycled duct guard

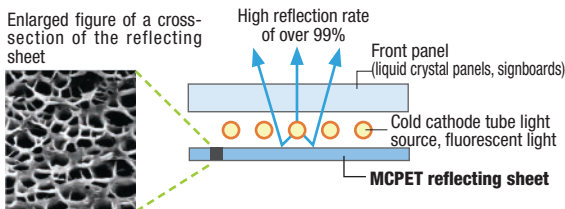
### Micro-cellular foamed light reflecting sheet "MCPET"

MCPET is a foam that includes numerous superfine bubbles of less than 10µm, and this structure makes it a plastic light reflecting sheet with an extremely high reflection rate for visible light of over 99%.

Making use of this high reflection rate, we have realized energy conserving effects such as increasing the average lighting intensity of electric signboards (increased by approximately 1.6 times), or maintaining the lighting intensity while decreasing the number of lamps. MCPET

also has the property of highly diffusive reflection and can contribute to thin and sleek lighting and to the improvement of uneven lighting in signs. Meanwhile, it also has the property of small wavelength dependence (it can recreate primary colors) and is being used in dis-

play showcases and optical displays. In recent years, it is also being used as a reflecting sheet for the backlight of LCD television sets. This is a product that is expected to contribute to meeting the demands for further energy conservation in the areas of lighting and signs.



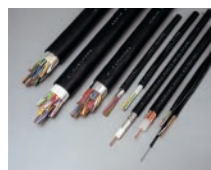
## Recycling Activities

The Furukawa Electric Group promotes the recycling of waste material by establishing a collection network and recycling system. Through the collection networks at nine bases throughout Japan, we collect removed electric wires and cables, recycling 100% of the conducting materials like copper and aluminum. Insulation materials are also recycled as recycled plastic and fuel. In addition, used plastic waste materials and plant loss materials are recycled on the recycling line, and the resulting recycled pellets are put to a wide variety of uses, from being recycled as products to being used as materials for injection molding and extrusion molding.

For specifics on our recycling technology, please refer to the following page on the Furukawa Electric website.

<http://www.furukawa.co.jp/enviro/tech/index.htm>

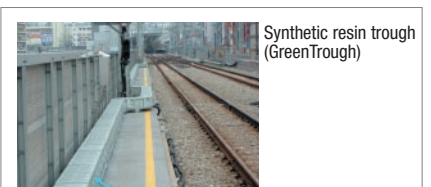
### Recycled products



Recycled electric wires (Telecommunication cables)



Recycled electric wires (Power cables)



Synthetic resin trough (GreenTrough)



Cable duct for underground laying (KOTA-KUN)

## Environmental Risk Management

### Countermeasures Regarding Pollution of Soil and Groundwater

The Furukawa Electric Group recognizes that the pollution of soil and groundwater is an important issue in terms of safety and health for local residents and employees, and we are working to grasp the state of pollution. This is not something that is required of us through legal regulations, but measures that we have undertaken voluntarily.

If the soil or groundwater is found to be polluted during investigations, we take a prompt action. We also report to the administrative organs about these polluted conditions and measures to be adopted to clean the environment, and disclose this information to the lo-

cal residents, related institutions and media as necessary.

We are also conducting pollution risk avoidance activities at the works and business bases to implement appropriate cleaning measures so that soil pollution will not negatively affect surrounding areas. In fiscal 2005, we completed the harmful substance history review at the works and affiliated companies. Each of the works completed the risk assessment, and a portion of the works began investigations into the state of soil pollution based on this assessment.

#### Key Points of the Pollution Risk Avoidance Activities

- Prohibit the laying underground of new reservoir facilities and pipes for harmful substances.
- Inspect for the leakage of harmful substances, prevent leakages, and switch to substitute substances.
- Study the history of use of harmful substances, the records, and continue storage management.

#### Situation and Countermeasures Regarding Pollution of Soil and Groundwater

Situation of Furukawa Electric			
Name of Works	Location	Contaminant	Cleansing method
Nikko Works*	Nikko-shi, Tochigi Prefecture (Company owned areas in Uwanoshiro, Arasawa Uodome, Kiyotaki 4-chome, and the grounds of the former Mizusawa skating rink)	Selenium, arsenic, lead, cadmium, fluorine	Cleansing and recycling into cement materials, after the excavating and removal of contaminated soil
	We are also planning to conduct pollution investigations and cleansing measures in seven other company owned areas, expecting to complete them in fiscal 2006.		
Former Kambara Works	Shizuoka-shi, Shizuoka Prefecture	Lead, fluorine, arsenic, tetrachloroethylene	Cleansing and recycling into cement materials, after the excavating and removal of contaminated soil
Situation of Affiliated Companies			
Company Name	Location	Contaminant	Cleansing method
Totoku Electric	Nagawa-machi, Chiisagata-gun, Nagano Prefecture (Former Nagato Works)	PCB, dioxine	Storage and control after the excavating and removal of contaminated soil
Former Tochigi Metal	Nikko-shi, Tochigi Prefecture	Hexavalent chromium, lead, tetrachloroethylene	Excavating and removal of contaminated soil, replacing with clean soil, vapor suction, and cleaning of original site with a chemical treatment
Former Furukawa Altec	Hiratsuka-shi, Kanagawa Prefecture	Fluorine	Cleansing and recycling into cement materials, after the excavating and removal of contaminated soil
Kyowa Electric Wire*	Neyagawa-shi, Osaka Prefecture (Former Osaka Works)	Lead, cyanogens, boron, fluorine, dichloromethane	Pumping and cleansing of groundwater
Furukawa Color Aluminum*	Utsunomiya-shi, Tochigi Prefecture (Head Works)	Hexavalent chromium, fluorine	Pumping and cleansing of groundwater
Furukawa-Sky*	Oyama-shi, Tochigi Prefecture (Oyama Plant)	Tetrachloroethylene	Pumping and cleansing of groundwater

The \* indicates a continuation from fiscal 2004



## PCB Management

The quantity of PCB instruments is recognized on every works and appropriate storage management is conducted, and with the start

of processing operations by Japan Environmental Safety Corporation, we will successively commission processing.

### Quantity of PCB Stored

Unit: item

Name of Works	In storage	In use	Total	
Chiba Works	(Already processed)	86	0	86
	(Unprocessed)	39	0	39
Nikko Works	182	140	322	
Hiratsuka Works	40	3	43	
Mie Works	53	73	126	
Osaka Works	55	11	66	
Yokohama Works	9	0	9	
Total	464	227	691	

## Compliance with Laws and Regulations and Other Items to be Observed

We are regularly confirming other items to be observed, and making efforts for compliance by patrolling our sites to check the implementation status.

We keep track of revisions of laws and regulations, by closely following the latest information in the Official Gazette.

## Responding to the Asbestos Problem

The Furukawa Electric Group has established an "Asbestos Problem Task Force" with the CAO as its director to respond in this problem. We have investigated the health problems, its actual use in products, and the state of buildings and facilities owned by our company.

### ● Actual Use in Products

We investigated the history of asbestos use including the products of affiliated companies. Currently, products containing asbestos are not manufactured nor imported, but there are products that were manufactured and sold for industrial use in the past. Targeted products include electric wires for ships and fire prevention products for use in construction to install electric wires for telecommunication and elec-

tricity. We are disclosing information on these issues through industry associations like The Japanese Electric Wire & Cable Makers' Association and Cable Firestop systems Association of Japan, and we are also responding to customers by providing information and responding to inquiries.

### ● Actual Use in Buildings and Plant Facilities

#### 1. Company housing, company-owned buildings and plant buildings

We did not discover any signs of asbestos use in company housing, but there was spray material in a portion of the company-owned buildings and plants. After investigating the state of diffusion of the asbestos, we confirmed that it was stable. In expectation of

the risk of future scattering and diffusion, we decided to remove it. We are conducting these removal procedures in succession, and expect to complete them during fiscal 2006.

#### 2. Facilities and equipment

Some of them contained asbestos, and for those where there were substitutes, we exchanged them. In cases where the asbestos was embedded in insulating materials, we confirmed that it had not scattered. For these, we will switch them with materials that do not contain asbestos in the future. Until then, we will oversee the safety conditions.

\*For health problems, please refer to the hygiene column on page 24.

### List of Products Containing Asbestos

(As of August 31, 2006)

Classification by Use	Product Name	Used regio	Production Period	Type of Asbestos Used	State of Countermeasures
Electric wires, cables, and accessories	Asbestos sheath	MI cable sheath	1969 to 1989	Chrysotile	Use glass wool after 1989
	Pipe flange packing	Water cooling equipment pipe joint	1977 to 1997	Chrysotile	Use non-asbestos product after 1997
	Braided asbestos thread	Cabtire cable sheathing	1977 to 1987	Chrysotile	Stop production in 1987
	Asbestos	Heat resistant layer of the rubber spacer for water cooled cables	1976 to 1983	Chrysotile	Stop production in 1983
	Asbestos tape	Assembly parts of the FRP spacer for water cooled cables	1976 to 1995	Chrysotile	Stop production in 1995
	Epoxy putty		1980 to 2004	Chrysotile	Stop production in 2004
	22/33 kV prefabricated joint	Waterproofed parts of the splice	to 1988	Chrysotile	Changed to non-asbestos product after 1988
	Pipe line waterproofing device	Waterproofed parts	to 1988	Chrysotile	Changed to non-asbestos product after 1988
	22/33kV air terminal box	Waterproofed parts of the joint	to 1988	Chrysotile	Changed to non-asbestos product after 1988
	Termination	Terminal parts (epoxy putty)	to 2004	Changed from chrysotile to tremolite in 2000	Changed to non-asbestos product after 2004
	Danseal P		1978 to 1984	Chrysotile	Non-asbestos after 1984
	Keikalite S, SG		1976 to 1985	Amosite	Non-asbestos after 1985
	Dannekka		1973 to 1982	Chrysotile	Non-asbestos after 1982
Keikalite H		1976 to 1987	Amosite	Non-asbestos after 1987	
Automobile related products	Wire harness for engines Asbestos sheet	Wound on the harness	1983 to 1989	Chrysotile	Stop production in 1989

## Environmental Accounting

We compiled “environmental conservation cost,” “economic benefit associated with environmental conservation activities” and “environmental conservation benefit (material benefit)” to quantitatively grasp the results of environmental costs and benefits. This data is collected in conformity with the environmental accounting guidelines published by the Ministry of the Environment. For affiliated companies, the data is collected for the 21 companies listed on page 2.

Environmental conservation costs for Furukawa Electric were 5.1 billion yen for expenses and 400 million yen for capital expenditure. Expenses decreased by 200 million yen compared to the previous year (fiscal 2004). The financial benefit amounted to 320 million yen.

Data of 10 more affiliated companies were collected. Environmental conservation costs were 3.3 billion yen for expenses and 1 billion yen for expenditure. The financial benefit increased by 1.5 billion yen due to an increase in energy consumption accompanying heightened operations.

### Environmental Conservation Cost

Unit: million yen

Category	Key activity and the outcome	Furukawa Electric		Affiliated companies
		Amount	Compared to the previous year	Amount
(1) Business area cost	Pollution prevention such as air pollution, energy conservation, waste disposal, etc.	1,401	-205	1,980
(2) Upstream / downstream cost	Retrieval of containers, drums, etc.	511	103	192
(3) Administration cost	Audit of environmental management system, monitoring of environmental impact, etc.	403	-67	276
(4) Research and development cost	Development of environmentally friendly products, research in substitutes for toxic substances, etc.	1,102	-32	713
(5) Social activity cost	Tree planting, cleaning in local communities, donations, etc.	89	85	22
(6) Environmental remediation cost	Assessment for environmental impact, cleanup of polluted soil, etc.	1,619	-65	149
<b>Total</b>		<b>5,125</b>	<b>-180</b>	<b>3,331</b>

For affiliated companies, a comparison with the previous year has not been calculated as the target companies differ from the previous fiscal year.

### Environmental Conservation Benefit

Environmental impact emissions	Unit	Furukawa Electric	Affiliated companies
		Reduction	Reduction
Industrial waste disposal amount *	t	1,597	1,786
Energy consumed (crude oil basis)	1,000 kl	16	7
Water consumed	1,000 t	-300	266
Emission of volatile organic chemical compounds	t	1	-2
CO <sub>2</sub> emission	1,000 t-CO <sub>2</sub>	11	-10
SO <sub>x</sub> emission	t	0	-21
NO <sub>x</sub> emission	t	33	9
Soot emission	t	-1	-1

\* Amount excluding recycled industrial waste

\* - (minus) represents an increase.

### Economic Benefit Associated with Environmental Conservation Activities

Unit: million yen

Contents of Benefits	Furukawa Electric	Affiliated companies
	Amount	Amount
Revenues gained by recycling	228	396
Reduction in waste disposal costs	61	-21
Reduction in energy costs	30	-1,882
Reduction in water purchase costs	-2	-4
<b>Total</b>	<b>317</b>	<b>-1,511</b>

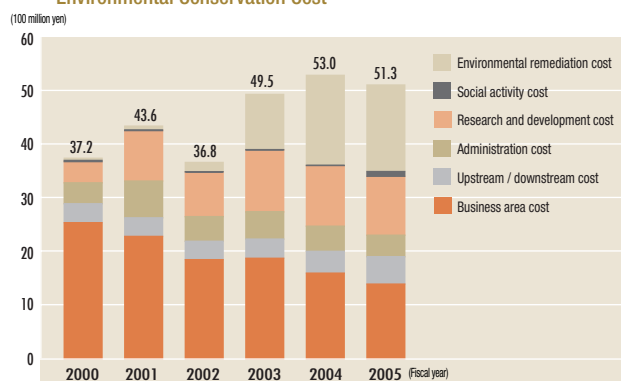
\* - (minus) represents an increase.

### Investment and Research Cost

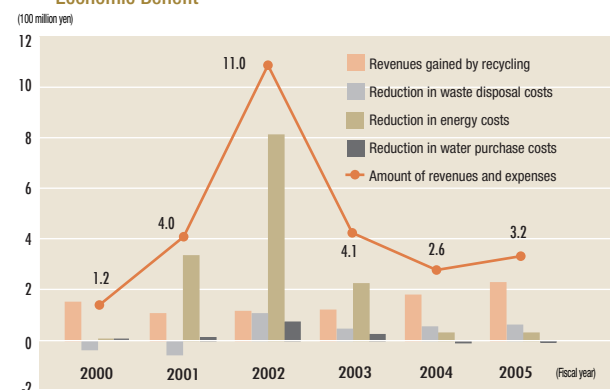
Unit: million yen

Investment and Research Cost	Furukawa Electric	Affiliated companies
	Amount	Amount
Environment-related investment	424	979
Total investment cost	8,826	17,699
Total research cost	9,480	5,612

### Environmental Conservation Cost



### Economic Benefit



# Environmental Preservation Performance Indicators

Of the works of Furukawa Electric, the data for air and water quality of four Works that are registered as specialized plants are reported below.

## ● Chiba Works

### Atmospheric Indicators

Item	Unit	Equipment	Legal Standards	Self-Imposed Standards	Average Value	Maximum Value
NOx	(ppm)	Melting furnace	180	180	31	51
Soot	(g/Nm <sup>3</sup> )	Melting furnace	0.1	0.1	0.033	0.048

### Wastewater quality indicators

Measurement Item	Unit	Legal Standards	Self-Imposed Standards	Average Value	Maximum Value
pH		5.0~9.0	5.0~9.0	7.8	8.3
COD	(mg/l)	15	15	4.6	9.6
SS	(mg/l)	20	20	3.9	10.9
n-h(mineral oil)	(mg/l)	2	2	0.2	0.4

## ● Nikko Works

### Atmospheric Indicators

Item	Unit	Equipment	Legal Standards	Self-Imposed Standards	Average Value	Maximum Value
NOx	(ppm)	Boiler	180	180	120	120
		Melting furnace	200	200	39	39
		Dryer furnace	300	250	47	47
SOx	(K value)	Boiler	17.5	17.5	0.39	0.39
		Melting furnace	17.5	17.5	0.26	0.26
		Dryer furnace	17.5	17.5	0.16	0.16
Soot	(g/Nm <sup>3</sup> )	Boiler	0.3	0.3	0.0	0.0
		Melting furnace	0.2	0.2	0.0	0.0
		Dryer furnace	0.5	0.2	0.0	0.0

### Wastewater quality indicators

Measurement Item	Unit	Legal Standards	Self-Imposed Standards	Average Value	Maximum Value
pH		5.8~8.6	6.0~8.5	7.1	7.6
BOD	(mg/l)	25	16	5.0	5.1
SS	(mg/l)	50	20	1.2	3.2
n-h(mineral oil)	(mg/l)	5	0.5	0.2	0.2

## ● Mie Works

### Atmospheric Indicators

Item	Unit	Equipment	Legal Standards	Self-Imposed Standards	Average Value	Maximum Value
NOx	(ppm)	Boiler	180	140	54	54
		Melting furnace	180	140	17	17
SOx	(Nm <sup>3</sup> /Hr)	Boiler	0.6	0.5	0.00	0.00
		Melting furnace	41.6	33.3	0.13	0.13
Soot	(g/Nm <sup>3</sup> )	Boiler	0.3	0.24	0.005	0.005
		Melting furnace	0.3	0.24	0.004	0.004

### Wastewater quality indicators

Measurement Item	Unit	Legal Standards	Self-Imposed Standards	Average Value	Maximum Value
pH		5.8~8.6	6.5~8.5	7.6	7.8
BOD	(mg/l)	10	4	3.0	5.0
SS	(mg/l)	25	6	1.5	2.1
n-h(mineral oil)	(mg/l)	1	0.7	0.10	0.15

## ● Osaka Works

### Atmospheric Indicators

Item	Unit	Equipment	Legal Standards	Self-Imposed Standards	Average Value	Maximum Value
NOx	(ppm)	Boiler	150	120	2.0	2.0
		Melting furnace	200	160	2.0	2.0
		Heating furnace	170	144	3.0	4.0
SOx	(K value)	Boiler	1.17	1.17	0.00	0.00
		Melting furnace	1.17	1.17	0.00	0.00
		Heating furnace	1.17	1.17	0.18	0.29
Soot	(g/Nm <sup>3</sup> )	Boiler	0.10	0.08	0.00	0.00
		Melting furnace	0.20	0.16	0.00	0.00
		Heating furnace	0.25	0.20	0.00	0.00

### Wastewater quality indicators

Measurement Item	Unit	Legal Standards	Self-Imposed Standards	Average Value	Maximum Value
pH		5.7~8.7	5.7~8.7	7.6	7.9
BOD	(mg/l)	300	10	5.0	9.0
SS	(mg/l)	300	50	11.0	25.0
n-h(mineral oil)	(mg/l)	5	2	1.0	2.0

## Social and Regional Involvement

The Furukawa Electric Group is fulfilling its responsibility as a member of society through disaster relief support and exchanges with the local community.

### Support and Cooperation

#### ● Cooperation with the Chiba Environmental Restoration Fund

Chiba Prefecture has created a “Chiba Environmental Restoration Fund”<sup>\*1</sup> and aims to have the best natural environment in Japan, under the slogan of “Restore nature in our hometown!” The Chiba Works of Furukawa Electric asked for donations to this “Chiba Environmental Restoration Fund” from all its

employees in the works. The 148,000 yen collected was given to the Chiba Prefectural Environment Foundation.

<sup>\*1</sup>“Chiba Environmental Restoration Fund”

This fund was established in the Chiba Prefectural Environment Foundation to promote the “Chiba Environment Restoration Plan” formulated in February 2002 by Chiba Prefecture.

#### ● Monetary Donations to Victims of Natural Disasters

We contributed a donation of 1 million yen towards the damage caused by “Katrina,” the hurricane that swept the southern US in August, and we contributed a donation of 200,000 yen towards the damage caused by the major earthquake in northern Pakistan in October.

### External Awards

#### ● Award from the Commissioner of the Fire and Disaster Management Agency

The self-defense fire brigade of the Osaka Works has been awarded by the Commissioner of the Fire and Disaster Management Agency for the merit of its safety efforts for fiscal 2005. Since its launch in 1967, this fire brigade has actively participated in disaster prevention training sessions conducted by fire defense related organizations. Further, it has established a system for effectively utilizing water for fighting fires and utilizing fire fighting mobility with emergency support in mind, in order to be able to respond when a fire or other disaster arises in nearby works. It was awarded for its contributions to creating a safe local community and establishing a voluntary safety system, seeking to emphasize the cooperation system for local neighborhood safety and increase consciousness of disaster prevention.



Certificate of Award from the Commissioner of the Fire and Disaster Management Agency

#### ● Recognition as a Quality Company in Ho Chi Minh

Furukawa Automotive Parts (Vietnam) Inc. (FAPV), an overseas affiliated company, was recognized by the Vietnamese government as a quality company. In addition to wire harnesses, FAPV has constructed plants for making the

materials for wire harnesses such as electric wires and parts, and is carrying out a continuous operation for wire harness production locally. It was recognized for the local contribution of its business and production in Vietnam.



The President of FAPV gives a speech as the representative of the company

#### ● Recognition by the Presidents of NTT East and West Corporations for the Environmental VA Proposal

Our success in realizing a recycling percentage of 100% (previously 67%) by conducting material recycling of removed optical fiber cables that had traditionally been disposed of in landfills into recycled duct guards, and implementing the environmental VA proposal of “100% material recycling of removed optical fiber cables” was highly evaluated, and we received a letter of appreciation from the presidents of both Nippon Telegraph and Telephone East Corporation and Nippon Telegraph and Telephone West Corporation.



Receiving the award from the Executive Vice President of NTT West Corporation

#### ● Award of Superconductor Science and Technology

We were awarded the “9th Award of Superconductor Science and Technology” by the Society of Non-Traditional Technology for our work on “the development of a 500m long high-temperature superconducting electric transmission cable” conducted jointly with the Central Research Institute of Electric Power Industry and Super-GM.

We revealed the numerous heat characteristics and mechanical characteristics during the cooling process, as well as the characteristics of electric transmission, electrical insulation and heat insulation while operating through the public testing of our 500-m long high-temperature superconducting electric transmission cable, the longest in the world. Further, by incorporating various structures such as models of actual lines for the test line, we were able to discover unexpected phenomena and show methods for resolving them. These accomplishments are major breakthroughs towards practical use, and were evaluated as prominent accomplishments in the superconductor field.



Award of Superconductor Science and Technology



## Cleaning in Local Communities

The Furukawa Electric Group carries out cleaning activities in local communities, including the areas surrounding its respective business bases, and also coastal areas and rivers. In the headquarter district, we also participate in community activities in Otemachi and Marunouchi, and we collect garbage on the streets once a month as our local environment cleanliness activity.



Cleaning activities at respective locations and companies



## Communicating with the Community

●The Hiratsuka Works participated in an “Environmental Fair” hosted by the Hiratsuka City, which aims to be an Eco City, and the Forum for Environmental Symbiosis Corporations\*, and introduced its environmental activities to the members of the local community.

\*2“Forum for Environmental Symbiosis Corporations”  
This forum was formed by an appeal of Economic Department, Industry and Labor Administration Section of Hiratsuka city in 2000, consisting of corporations interested in Hiratsuka. The main activities include exchanging information about the environment, conducting tours of environment-related facilities and hosting an Environmental Fair.



Exhibiting at the Hiratsuka Environmental Fair

●The Nikko Works invited local elementary and middle school students to a tour of the plant. We received posters and letters of thanks. We are also conducting plant tours for elementary and middle school students at other works and affiliated companies.

A “thank you” note from junior-high school students



Tour of the Nippon Foil Mfg. Nogi plant by elementary school students

●We actively participate in local events of respective regions, communicating with members of the local communities.



The Yawata Seaside Festival



Nikko Waraku Odori Dance

## Environmental Performance of the Works

### Chiba Works

#### ● Contributing to and Living in Harmony with the Local Community



Manager of Chiba Works  
**Toru Kumabe**

Since beginning its operations in Ichihara City at the center of the Keiyo seaside industrial zone in 1961 as Furukawa Electric's main plant, the Chiba Works has been responsible for the production of electric wire materials and telecommunication and power cables, as well as the development and production of high-capacity telecommunications equipment. At this works, all employees participate in efforts to treat the reduction of environmental impact and environmental conservation rooted in local communities as top priority issues. In particular, we

were able to achieve the targets for energy conservation and the reduction of greenhouse gas emissions, beginning with the achievement one year ahead of schedule of zero-emission (less than 1% landfill waste), which we have been involved in from five years ago. Also, as activities closely linked to the local community, we have conducted environmental education during environmental months for nearby elementary school students, cooperated with the Chiba Environmental Restoration Fund and provided wood planters and car stops made from waste materials for the

Yawata Seaside Festival, working to contribute to and live in harmony with the local community.

Planters created from re-covered wood drums



Receiving a letter of appreciation from the Chiba Environmental Restoration Promotion Committee (Chairman: Ms. Domoto, Governor of Chiba Prefecture)

### Nikko Works

#### ● Environmental Contributions Over Borders



Manager of Nikko Works  
**Hiroyuki Kamishiro**

It is my hope that many of our employees empathized with the phrase "There are no borders in the environment," part of the narration of a video for common environmental education where environmental issues that are arising throughout the world were raised. There are no borders in the environment, in water, land, or in air. I have placed my hope that each and every person would realize that it is the same both inside and outside the fence and act accordingly in the words "one phrase environmental declaration," writing them on my own environmental policy card

that I carry with me. We are promoting the diffusion and penetration of an interest in maintaining the environment, with the awareness that the plant becoming messy is the same as a home becoming messy.

In order to preserve the beautiful nature of the Nikko National Park, the thoughts and feelings of the people who live there must be beautiful; otherwise, it cannot be maintained. In our role as a works which has the most employees involved with Nikko City, we are making an effort to create people and a region where we can comfortably live, not only through Waraku

Odori dance, but also by taking on local beautification activities and introducing the activities of the works to local elementary and middle school students.

Cleaning around the works



Plant tour by local junior-high school students

### Hiratsuka Works

#### ● Aiming For Activities with an Awareness of CSR



Manager of Hiratsuka Works  
**Toshio Kikuta**

This year, it became necessary to give explanations to surrounding residents in order to conduct soil purification. We proposed a current-best purification plan, but many opinions were given at the information session, and we acutely felt the extent of everyone's concern and the company's social responsibility (CSR). As an aspect of CSR, we are involved in the following key issues.

In order to reduce waste, we have switched from accumulating waste at each plant to a concentrated accumulation of waste for the entire works, with monitor-

ing personnel for sorting. Achievement of zero-emissions by the end of fiscal 2006 has now come into scope.

To reduce CO<sub>2</sub> emissions, we introduced NAS batteries that effectively utilize nighttime electricity, and we have switched our fuel from butane to city gas. As a result, we expect to see a total reduction effect of approximately 1200 t/year.

To conserve energy, we have created a sunshade arbor on the west side of the office as shown in the picture. This lowers the room temperature by approximately three degrees, allowing us to alleviate

some of the air conditioning impact. The greenery is also visually refreshing.



Sunshade arbor on the west side of the office

## Osaka Works

### ● Cleaning Outside the Premises, Realizing Each Year That Treasured Feeling



Manager of Osaka Works  
**Tatsuo Yoshisue**

At the Osaka Works, we are conducting cleaning activities outside the premises during the environmental month in June, and we have continued to do this since acquiring ISO14001 in 2002.

To begin with, around the middle of each month the back-office staff members clean outside of the buildings in the works for 30 minutes all at once, and in June, some of them worked together with Viscas, Furukawa Logistics, and Japan Precision Pipes to clean outside the premises. We went to the walk outside the premises and the pavement alongside Doi

Park directly across from us, not only picking up empty cans, trash, and cigarette butts from the pavement and gutters, but also sweeping the pavement. The time is still 8:30 in the morning, so many commuters from nearby companies (plants) flash us a look of doubt as they pass by. The mere act of working hard at cleaning and working up a sweat leads to a curious feeling almost of pride welling up inside me. It is a slightly strange feeling.

Perhaps this is what it feels like when you have contributed to society. I would like to treasure this feeling.



Cleaning outside the premises

## Mie Works

### ● Environmental Conservation in Cooperation with the Local Community



Manager of Mie Works  
**Nobuo Arai**

The Mie Works is located in Kameyama City, in a place of natural beauty at the foot of the Suzuka mountain range. Kameyama City has recently drawn up the "Kameyama City Basic Environmental Plan," it calls for residents, businesses, and the administration to work together in implementing environmental conservation activities. Our works is also actively participating in activities held by the administration as a member of the local community and society, and we have also drawn up plans ourselves and acted upon them, actively participating in local

environmental conservation activities. Recently, we have participated in "River and Ocean Clean Strategies," "National Road 1 Clean Strategies," volunteer activities, and exhibited at the "Experience the Environment Fair for Children 2006." We also cleaned the public roads around the works for approximately 1.5 km, and have received a high evaluation from the local community and authorities. Further, we have made presentations at "Meeting Place for Environmental Activities," and we intend to continue to promote environmental conservation in cooperation with

the local community. Meanwhile, in terms of activities within the works, we have further promoted activities that contribute to environmental conservation in our daily production activities in addition to continuing to prevent pollution.



During break in volunteer activities

## Yokohama Works

### ● Research and Development with an Emphasis on the Environment



Manager of Yokohama Works  
**Mitsuyoshi Shibata**

The Yokohama Works mainly has staff employees, such as those of the laboratory. We have been conducting a variety of activities since acquiring ISO14001 in 2002, and of these we have emphasized "research and development with the environment in mind." In research and development, we use a wide variety of, and state-of-art chemical substances than any other works. To make this possible, we have created our own specialized committee to thoroughly investigate whether a substance can be used and how to handle it, implementing measures

that absolutely prevent leakage to the environment. We have also incorporated Design for the Environment (DfE) to develop products with the environment in mind. Meanwhile, utilizing our analytical technology that we have developed over years, we are contributing to the analytical assessment of environmental impact substances for all of the Furukawa Electric Group products. In addition, all of the employees are working together in energy conservation activities, waste reduction activities, and activities to clean the neighboring areas, and we are

aiming to become a works that places environmental conservation first.



Cleaning neighboring areas



## Involvement with Employees

### Relations with Employees

#### ● Views 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 are aiming to establish more constructive relations in which the company and our employees can enhance each others abilities and value.

#### ● Employee Labor Management

In terms of employee labor management, we are working towards the appropriate management of labor on a daily basis, in accordance with the Labor Standards Law and other related laws and company rules. Particularly in 2005, reflecting upon the problems\* identified by the Labor Standards Supervision Office, we strengthened management levels for working hour management throughout the company in all divisions.

\*From the fact that working hour management was not con-

ducted appropriately, with the underreporting of overtime working hours for some of the back-office staff, it became clear that as a result there were unpaid augmented wages in many of the divisions. We conducted a company-wide investigation, paying wages for the unreported hours and voluntarily releasing the recounting of events external to the company (October 28, 2005).

#### ● Placement, Evaluation and Job Conditions

We are working to provide opportunities for placements and job assignments, emphasizing individual motivation and abilities based on the concept of equal opportunity. As a part of this, we are implementing various interview systems and providing opportunities for employees to reflect on their career goals.

Regarding evaluation and job conditions, we have adopted an incentive program for the fair evaluation and treatment of our employees, according to their abilities and performance. We are also working on training managers to have performance evaluation skills, in order to improve the management of the system and win the trust of our employees.

#### ● Education and Training Systems

We believe that the strength of our company lies in the synergy of the abilities of each employee at the work site and that each employee's ability is enhanced in a practical way through everyday work.

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

#### ● Support System Corresponding to Various Ways of Working

We respect our employee's lifestyles and have established various support systems that enrich each individual's working life.

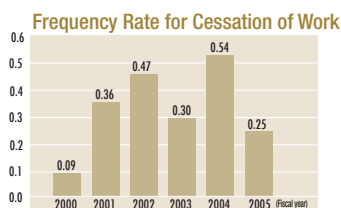
Various Systems	Purpose / Content
Flexible Working Hours	We adopt a system of flexible working hours which enables employees to work efficiently according to business demand. We support employees having flexible working hours that suit their lifestyle.
Refresh Holiday	Employees are able to take three consecutive days off once a year, and five consecutive days off every five years, so that they can enjoy well-planned holidays and refresh their minds and bodies.
Holiday Accumulation	A maximum of 10 days out of the remaining regular annual holidays can be carried forward to the accumulated holidays (effective for five years).
Maternity and Paternity Leave	Any employee (male or female) who has a child under one and a half years of age can take child care leave for a duration of their choice, until their child is one and a half years old.
Nursing Care Leave	In cases where an employee's spouse, child(ren) or parent(s) (including the spouse's parents) need nursing care, that employee is able to take nursing care leave for up to one year, if certain conditions are fulfilled.
Retirement Seminar Middle Age Seminar	For union members who reach a certain age, union and management jointly provide these seminars, with the aim of enhancing their current lifestyle and supporting their lifestyle after retirement.
Re-employment After Retirement	We have a re-employment system for employees who have reached the retirement age of 60.



## Safety Efforts

### ● Safety Record

The frequency rate for cessation of work in fiscal 2005 was 0.25, and there were two accidents that led to the cessation of work.



### ● Company-Wide Priority Safety Activities

Activities are carried out by focusing on the company-wide priority safety activities according to the Company-Wide Safety and Health Control Guidelines for fiscal 2005.

#### [Company-Wide Priority Safety Activities]

#### 1. "Enhancement of the compliance management system of dangerous and hazardous work-II"

~Establishing a system for pursuing qualified work~

#### 2. "Eradication of unsafe behavior due to the promotion of work standardization"

~Identify the key points for equipment safety and work safety~

#### 3. "Thoroughgoing safety and health education to transferred personnel"

~Thoroughgoing OJT education using the operating manual to transferred personnel, temporarily transferred personnel, external workers, temporary staff, and trainees~

### ● State of Safety Activities

We are promoting safety activities that aim for "from zero accidents to zero risk" and "from preventing reoccurrence to predicting and forecasting."

#### 1. Promoting the standardization of work and the essential safety of equipment

We are promoting the standardization of work and the essential safety of individual facilities and equipment, incorporating the instincts and techniques of work from the perspective of the triune aspects of safety, quality and productivity.

#### 2. "Hiyari-Hatto" fear and alarm activities

As a method for assessing residual risks for work and equipment and making specific improvements, as well as increasing sensitivity

to danger, we are carrying out Hiyari-Hatto fear and alarm activities with all employees participating.

#### 3. Interactive individual safety interviews

With the aim of increasing safety awareness based on "steadily looking" at unsafe working conditions, we are conducting "interactive individual safety interviews" to foster communication and a common awareness of unsafe behavior between overhead managers and workers, seeking to correct behavior.

#### 4. Auditing the state of adherence to laws on dangerous and harmful work

We used a checklist to conduct an internal audit of the state of adherence to laws on handling harmful substances, wearing protective gear, inspections mandated by law, and certified workers.

#### 5. Safety and health education to transferred personnel and temporary workers

We are conducting OJT education using the "operating manual" to instruct people with less than one year of working experience through periodic skills assessment and individual safety interviews.

## Health Efforts

### ● Mental health education

Furukawa Electric has been promoting company-wide mental health measures since 2002, in line with "Guidelines for Promoting Mental Health Care in Enterprises" published by the Ministry of Health, Labor and Welfare. From fiscal 2002 to fiscal 2004, we conducted basic education for all of our employees on mental health. In fiscal 2005, we are currently offering an advanced course, incorporating case studies, to help them acquire skills in practical response for preventing and responding quickly to any mental health problems.

### ● Health care for employees that work long hours

Based on the guidelines issued by the Labor Standards Bureau, "Measures to be Taken by Employers to Prevent Health Impairment Due to Overwork," we are committed to checking up and following the health care of our employees that work long hours by placing strict restrictions on the time they work, based on the

results of a medical examination, and using a consultation system which involves a medical officer and the employee who works long hours.

### ● Responding to asbestos-related illnesses

Since the asbestos problem was covered on media during the summer of 2005, we investigated workplaces that had handled asbestos products in the past and conducted special health exams for employees at these workplaces. We also sent notices urging retired employees of the workplaces to take special health examinations. As of now, one retired employee who had been in charge of underground electric power line installation died of mesothelioma and has received workers' accident recognition.

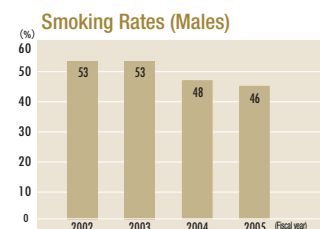
There are currently no workplaces that handle products containing asbestos.

For illnesses caused by asbestos, the illness develops after an extremely long period of time since exposure, often 20 or 30 years, and we

will continue to successively follow up on these illnesses.

### ● Promoting separate smoking areas

We set up more than 70 smoking rooms during fiscal 2004 to promote separate smoking areas, in line with the "Concerning the Guidelines for Measures on Smoking in the Workplace," a notification issued by the Director-General of the Labor Standards Bureau in 2003. Thanks to these efforts, the company-wide percentage of smoking among males in the company decreased from 53% in fiscal 2002 to 46% in fiscal 2005. In the future, we will continue to prevent passive smoking and actively promote nonsmoking.



## Involvement with Employees

### Compliance

The Furukawa Electric Group defines “compliance” as “more than simply abiding by laws and regulations. Rather, compliance is based on the values and ethics that the company and its employees adhere to, as responsible members of society.” In June 2004, we established the “Furukawa Electric Group Action Guidelines” as the basic philosophy for adhering to ethics. In June 2005, we established internal regulations on conducting compliance, a system for promoting compliance, and an internal reporting system, and we are promoting compliance based on these.

#### ● System for promoting compliance

As the central organization for promoting compliance, we established the Central Compliance Committee with the CAO (Chief Administrative Officer) as the chairman. We have set compliance committees in the works and branches around the country as subordinate organizations.

Through these organizations, we are conducting enlightenment and educational activities, getting a grasp on compliance risks and investigating and responding to internal reporting matters.

#### ● Compliance education

Based on the “Furukawa Electric Group Action Guidelines,” in June 2005 we have compiled the “Action Guidelines for Company Officials and Employees” that demonstrated specific codes of conduct and the “Manual on Action Guidelines for Company Officials and Employees” that contained additional explanations. We combined these along with messages from the President and CAO into a booklet called the “Compliance Handbook,” which we distributed to all employees, conducting education on compliance in the workplace.



#### ● Internal reporting system

In order to realize early discovery and correction of compliance violations, we introduced a system where company officials and employees can report directly to the Central Compliance Committee (internal reporting system) from July 2005. External specialists also serve as windows for these reports, utilizing a mechanism where mutual contact between the company and reporting body is possible, giving feedback to the reporter on company response after ensuring strict anonymity for the reporter. The results of the investigations into reported matters and our response to them is reported to the board of directors as appropriate.

#### ● Protecting personal information

On the occasion of the full-fledged enforcement of Act on the Protection of Personal Information in April 2005, the Furukawa Electric Group began operating under the awareness that protecting personal information is a social responsibility given to companies. We established internal regulations concerning the protection of personal information called “Guidelines for Handling Personal Information” and sought to thoroughly spread awareness. We are working to maintain an appropriate control system for personal information and prevent the leakage of information.

### Furukawa Electric Group Action Guidelines

We, company officials and employees of the Furukawa Electric Group, will:

- 1 Abide by the laws and regulations in Japan and abroad, and act in conformity with internal rules and external rules such as social codes and ethics;
- 2 Properly display and adequately disclose corporate information, including financial statements;
- 3 Deal with antisocial groups in a resolute manner;
- 4 Aim to be a company that is useful to society by developing products that aid the development of society and by providing reliable products and services;
- 5 Try to act with consideration for the protection of the global environment;
- 6 Respect human rights, cultures and traditions as a member of the international community;
- 7 Create a company in which employees can feel a sense of reward, ease and fulfillment; and
- 8 Maintain and develop sound and good relations with all stakeholders.

# Environmental Performance of Affiliated Companies

## Sunsunny Industry Co., Ltd.



Head Works: 54-12 Inuzukadaiyama, Oyama-shi, Tochigi  
Number of Employees:41  
URL: <http://www.sunsunny.co.jp/>  
<http://www.furukawa.co.jp/netsu/>  
Contact: Promotion Section of ISO  
TEL : +81-285-24-3191  
FAX : +81-285-24-3083

## The Awareness of the Environment has Increased Dramatically

### History

Our company began its operation in Aomori Prefecture as a joint business venture with Furukawa Electric and Miyoshi Industry Co., Ltd. in 1976. Later, in 1981 we moved to the current location in Oyama, and we became the wholly owned company of Furukawa Electric. Since our founding, we have worked as the pioneers of floor heating systems, conducting everything from development, production, operation, and follow-ups.

As our company products are installed as heating devices in buildings, we fall under the Building Standard Law. We are also promoting the development of products that are environmentally friendly, such as products that fall under the highest ranking of F☆☆☆☆ for formaldehyde emission division by JIS and JAS and Hot-Water Floor Heating System called "Yukadan Hot Cool" using a heat pump that consume a low level of energy when used.

### Preparatory stages

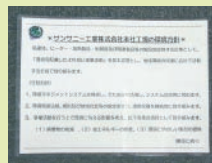
### Efforts for Environmental Preservation -Activities to acquire ISO14001 certification-

Our company acquired ISO9001 certification in 2002, and we are aware that environmentally friendly activities are important issues for the company. We have decided to carry out environmental preservation activities based on ISO14001. In July 2004, the company's president made the kickoff declaration, "Acquisition during fiscal 2005," and began conducting activities towards acquisition. Newly placing an individual in charge of the environment in the Promotion Section of ISO that was the promotion department for quality systems, this became the head office for environmental management systems where preparations were begun. First, we acquired environmental manuals and related documents from companies that had already acquired certification within the Furukawa Electric Group and used them for reference in creating a mechanism. For study groups on ISO standards and training of internal auditors, we asked for instructors from Furukawa Electric and deepened the understanding of the

employees who are central to our activities. In December 2004, as we were in the midst of making these preparations, the ISO14001 standards were revised, and we struggled to acquire information on the revised points and their interpretation.

### Environmental policy

In June 2005, the President set the environmental policy, and these were distributed as wallet size versions to ensure a thorough awareness of the policy among all employees. Further, this policy was explained from time to time in our monthly company-wide morning meetings. The President wished to have the purposes and targets follow upon this policy, and to conduct activities that would have a positive effect on accounts, so he set indicators where the reduction of the amount of environmental impact is reflected in cost reductions.



### Assessment of law-abidance

In terms of law-abidance, we newly investigated and sorted out which tasks for each process fell under what laws and regulations. We measured noise and vibrations and rechecked the storage conditions of dangerous substances, confirming that there were no problems. For wastewater, we reviewed the wastewater disposal method. As the waste liquid from the cleaning water in gluing and printing equipment did not contain harmful substances, after filtration we were taking the method of letting it seep into the ground. From the perspective of risk management, we stopped this format for waste liquid from production line and decided to have the waste liquid collected by a disposal company. In fiscal 2006, we are conducting activities after incorporating the reduction in the volume of this waste liquid commissioned for collection into our targets. This investigation and sorting was a good opportunity for us all to study the law and was effective in raising awareness of compliance with laws.

### Certification audit

We had a pre-survey by the certification body in the August before actual certification audit, and we checked to ensure that there were no major defects in the system we had built. In this pre-survey, we received requests to improve the aspect evaluation system and were told of our lack of interpretation of the standards. We had the actual audit in late October to early November. The results of the audit revealed no major nonconformities, and four minor nonconformities. We immediately corrected the nonconformities and reported this to the certification body. The following December, we were able to acquire certification without any trouble.



### Effects and future issues

As a year has not yet passed since we began full-fledged activities, numerical effects cannot yet be seen, but information has been shared and there has been an increase in the awareness of the environment among all employees. In the future, we can expect major tangible and intangible results. We have also begun to see voluntary beautification activities in the areas surrounding the plant, with employees picking up trash on the public roads and clipping hedges.

The two issues that were mentioned were 1) the improvement of slightly heavy mechanisms and 2) reflection in accounts, and we plan to see results from these improvements.

## Environmental Performance of Affiliated Companies

### Shodensha Co., Ltd.



Headquarters: 5-23-8 Nishi-Gotanda, Shinagawa-ku, Tokyo  
 Tokyo Factory: 23-8 Nishi-Gotanda, Shinagawa-ku, Tokyo  
 Mie Factory: 16-13 Nobono-cho, Kameyama-shi, Mie  
 Saitama Factory: Aza-sakuranami, Ooaza-kitanagai, Miyoshi-machi, Iruma-gun, Saitama  
 Engineering Department: 2-10-4 Oonodai, Midori-ku, Chiba-shi, Chiba  
 Number of Employees: 122  
 URL: <http://www.ksd-shodensha.co.jp/>  
 Contact: Quality Assurance Department  
 TEL : +81-3-3493-1282 / FAX : +81-3-3493-1727

### We are aiming to make environmental management systems more efficient and slim

#### History

Our company was founded in 1922, and in 1950 the current Shodensha Co., Ltd. was established to produce telecommunication line facility materials mainly of ready access terminal box. Since then until today, we have given technical aid on the development of line products while consecutively increasing the types of products we sell.

Due to capital participation of Furukawa Electric in January 1985, we were able to strengthen technological development, diversify the items sold and work to accumulate technical strength.

In June 2002 we merged with Shinseidenzai and in September 2004 we relocated the Chiba Factory functions to the Saitama Factory. Our current organization is composed of the headquarters, engineering department, Tokyo Factory, Mie Factory, and Saitama Factory.

Our main products are optical cable closure (for underground and aerial) and optical cabinets. We are supporting "information and telecommunication" in the optical and broadband era from the aspect of facilities and equipment.

#### Efforts for Environmental Preservation

Our company recognizes that preventing the pollution of the earth and preserving the environment are the most crucial issues for all mankind, and in the production of devices for telecommunications lines, we are promoting environmentally friendly business activities.

In June 1999, we acquired ISO14001 certification, and in June 2005 we switched to ISO14001:2004. In July 2005 we combined the manuals for the quality management system and the environmental management system, aiming for the increased efficiency of operations and the streamlined management.

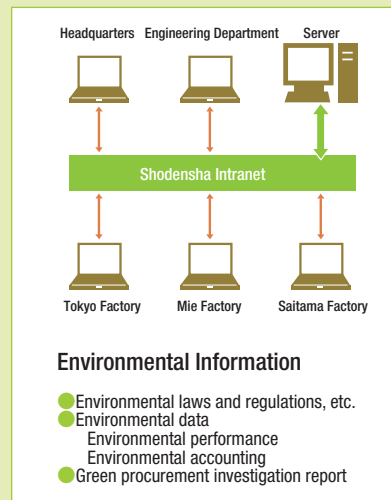
#### Priority Items (Fiscal 2005)

##### 1) Adhering to environmental laws and regulations

From June 2003, we have posted the relevant environmental laws, regulations and our customers' green procurement guidelines (referred

to as environmental laws and regulations, etc. hereafter) on the intranet, publicizing them within the company.

We have posted the following environmental information on the intranet, and are aiming for the sharing of environmental information.



##### 2) Developing products with a minimal impact on the environment

With optical measurement technology and plastic molding technology as our foundation, we are conducting optical access product development.

Taking into consideration our customers' green procurement guidelines, we conduct product assessments and consider what materials and parts to use, and how to design products to minimize the impact on the environment, not only when the manufacturing the products, but also when customers use them and when they are disposed of as waste.

##### 3) Energy conservation

Tokyo Factory carries out assembly, and Mie Factory and Saitama Factory carry out plastic molding and assembly.

The specific consumption of electricity for the assembly factory in fiscal 2005 (compared to sales) was reduced by 28% compared to the

previous fiscal year.

The specific consumption of electricity for the molding factory in fiscal 2005 (compared to the amount of plastic used) was reduced by 1% compared to the previous fiscal year.

Molding factory account for approximately 90% of our company's electricity consumption. In order to reduce the electricity consumption of molding factory, we are engaging in efforts to improve the operating rates of molding machines and shorten the setup time.

##### 4) Reduction of waste

The specific waste plastic generation for the molding factory in fiscal 2005 (compared to the amount of plastic used) increased by 20% due to the launch of new products.

In order to reduce waste plastic generation, we are engaging in efforts to increase the product yield rate and also to reduce the short downtimes of molding machines.

We installed a padding material manufacturing machine in Mie Factory in April 2002, in order to reuse used cardboard as padding material for packaging, and we are continuing to reduce the amount of cardboard waste.



Padding material using waste cardboard

##### 5) Promotion of recycling

Since 1999, we have been recycling the covers of the connecting terminal boxes that we deliver to the Nippon Telegraph and Telephone East Corporation and the Nippon Telegraph and Telephone West Corporation, working towards the effective use of our resources.



## Nikkei Kakoh Co., Ltd.



Headquarters: 3-8-39 Tagawa, Yodogawa-ku, Osaka-shi, Osaka  
 Headquarter Plant: 3-8-39 Tagawa, Yodogawa-ku, Osaka-shi, Osaka  
 Hiroshima Plant: 1368-1 Sasabe, Takamiya-cho, Akitakata-shi, Hiroshima  
 Sendai Plant: 11-1 Myojindo, Kaminomyo, Shibata-machi, Shibata-gun, Miyagi  
 Oyama Works: 54-3 Inuzuka Aza Daiyama, Oyama-shi, Tochigi  
 Number of Employees: 264  
 Contact: Environmental Office, Sendai Plant  
 TEL : +81-224-55-1441  
 FAX : +81-224-55-2879

## We will implement various measures to decrease the impact on the environment

### History

Our company was newly launched upon the merger of the former Nippon Keikinzoku Kakoki and the former Tohoku Furukawa Keikinzoku Kako in December 2001. Our headquarters are in Osaka, and we have plants in Osaka, Hiroshima, Oyama (Tochigi Prefecture) and Sendai (Miyagi Prefecture).

Our company works mainly with aluminum joining technologies (Headquarter plant: welding, Sendai plant: brazing), manufacturing automobile parts, bicycle parts, large-scale welded structures, farm equipment parts (assembly), precision instruments (assembly), and heat sinks.

### Efforts for Environmental Preservation

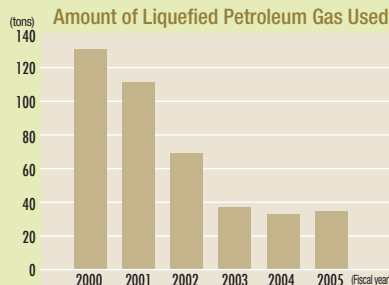
Our company believes that global environmental problems are crucial challenges for all mankind, and we have placed them as one of our top priority issues for company management. All of our employees have an enhanced awareness of the global environment and are engaged in environmental preservation activities.

■ August 2003, Hiroshima Plant acquired ISO14001.

### Priority Items (Fiscal 2005)

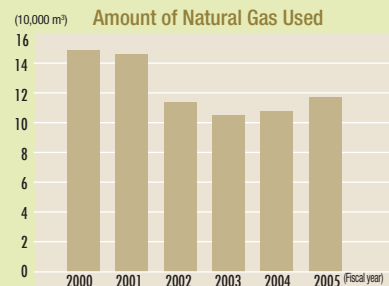
- Reduction of greenhouse gases
- 1) Reducing the amount of liquefied petroleum gas used

On the continuous paint line of Hiroshima plant, we have removed conveyers and paint robots, switching to hand painting line to respond to the recent trend of various products and small lots, to reduce energy consumption. We have reduced the amount of liquefied petroleum gas used in the drying process by approximately 74% compared to fiscal 2000.



- 2) Reducing the amount of natural gas used

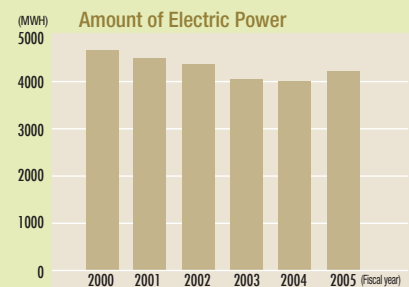
At the alumite facilities in the Osaka Headquarter Plant, we consolidated two boilers to one, and reduced the amount of natural gas used by approximately 21% compared to fiscal 2000.



- 3) Reducing the amount of electric power

In addition to the reduction in the amount of electric power consumed due to the switching to hand painting of Hiroshima plant paint line, we have reduced mercury lights and fluorescent lights, removed unnecessary electric wires, dis-

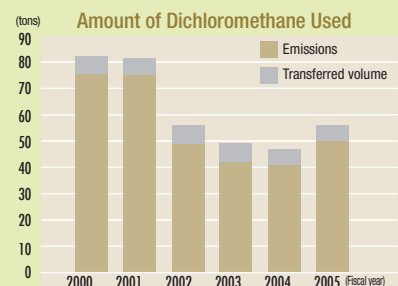
mantled unnecessary welding machines, conducted overall inspections of air conditioning systems and turned off lights when they are not needed, achieving a 10% reduction when compared to fiscal 2000.



- Reducing the amount of environmental impact substances used

At our company, we use dichloromethane for the purpose of cleansing fat and grease on the processed parts. We conducted an overall maintenance of the whole ultrasonic cleaning facility including the chiller and pipes in 2002. By suppressing the emissions into the atmosphere, we were able to reduce consumption by 32% compared to fiscal 2000.

We will engage in efforts to consider substitute cleansers and cleaning methods towards completely eliminating the use of chlorinated organic solvents.



# Furukawa Electric's Progress in Environmental Management / Company Overview

1972	Company-Wide Rules 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 from 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 of environmental preservation)
1994	Committee for Company-Wide Promotion of Energy Conservation started
1996	Specified CFCs and trichloroethane completely eliminated from the company
1997	Team for Promotion of Reduction in Industrial Waste started
1998	Furukawa Electric Basic Environmental Policy formulated Central Committee for Environmental Management started Committee for the Development of Environmentally Friendly Products started Chiba Works acquired ISO14001 certification Mie Works acquired ISO14001 certification Company-Wide Regulations for Environmental Management formulated revising the "Company-Wide Regulations for Pollution Prevention"
1999	Safety, Environment and Health Promotion Department started, incorporating the Environment Control Department and the Safety Control Divisions
2000	Ecology and Energy Laboratory established Liaison Meeting with Affiliated Companies established Environmental Report began to be issued Meeting of Environmental Personnel started Hiratsuka Works acquired ISO14001 certification Osaka Works acquired ISO14001 certification
2001	Medium-Term Plan for Environmental Preservation Activities 2002 formulated (for 2001-2002) Environmental accounting disclosed
2002	Nikko Works acquired ISO14001 certification Yokohama Laboratories* acquired ISO14001 certification (*current Yokohama Works) Green Procurement Preparation Committee started
2003	Furukawa Electric Basic Environmental Policy revised Medium-Term Plan for Environment Preservation Activities 2005 formulated (for 2003-2005) Green Procurement Executive Committee started Liaison Meeting of Consolidated Environmental Management started Seminar for managers of consolidated companies held
2004	Medium-Term Plan for Environment Preservation Activities 2005 revised Renamed from Safety, Environment and Health Promotion Department to Safety, Environment and Quality Promotion Department
2005	Green Product Management Committee started
2006	Midium-Term Plan for Environment Preservation Activities 2009 formulated (for 2006-2009)

**Head Office:** 2-3, Marunouchi 2-Chome, Chiyoda-ku, Tokyo, Japan

**Founded :** 1884

**Changed firm name :** 1920

**Paid-in Capital :** 69.3 billion yen

**Number of employees :** 4,350

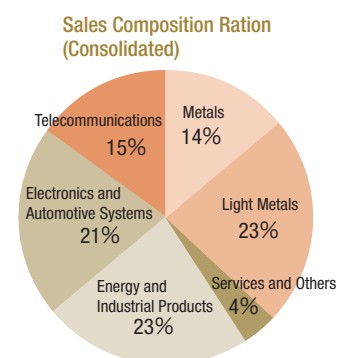
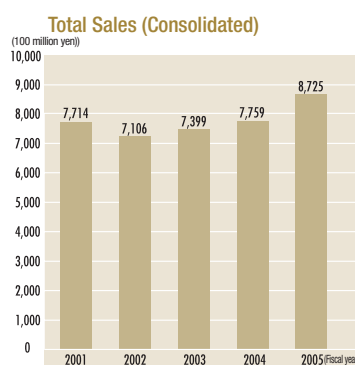
**Works :** Chiba Works, Nikko Works, Hiratsuka Works, Mie Works, Osaka Works, Yokohama Works

**Sales Offices :** Kansai Branch Office, Chubu Branch Office, Kyushu Branch Office

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

(As of March 31, 2006)

## Performance



## Information Disclosure on Our Website

On our Website, we are disclosing how Furukawa Electric is promoting its environmental preservation initiatives, and we are presenting previously published environmental reports, along with this one, in PDF format. Those can be obtained at the following Furukawa Electric Website.

<http://www.furukawa.co.jp/english/>

# THE FURUKAWA ELECTRIC CO., LTD.

## Safety, Environment and Quality Promotion Department

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