# CSR Report 2008



## Furukawa Electric Group CSR Report 2008



## Furukawa Electric Group Philosophy

## **CORPORATE PHILOSOPHY**

Drawing on more than a century of expertise in the development and fabrication of advanced materials, we will contribute to the realization of a sustainable society through continuous technological innovation.



With an eye to the future, we at the Furukawa Electric Group pledge to:

- Live up to the expectations and trust invested in us by society, with fairness and integrity.
- · Apply the sum total of our expertise to satisfy our customers and grow with them.
- \*Continuously strive to achieve world-class technological innovation, and transform ourselves in every area of endeavor.
- Nurture human resources at every level, so that we can become a more diverse and creative organization.

## The Furukawa Electric Group Credo

- 1. Maintain high ethical standards, and value honesty and integrity above all.
- 2. Continually improve, innovate, and lead, in every area of endeavor.
- 3. Take a hands-on approach that addresses the reality of every situation in the office, at the factory, and on site.
- 4. Be proactive take the initiative and work with others, persevering until a solution is found.
- 5. Maintain open channels of communication between departments and divisions, so that we can share ideals and help each other grow.









## **Editorial Policy**

### **Scope of this Report**

### **Organizations Covered**

This Report covers The Furukawa Electric Co., Ltd. and all members of the Furukawa Electric Group, including affiliated companies.

## **Scope of Themes Covered**

1) The economy

Furukawa Electric and its consolidated subsidiaries (110 companies)

2) The environment and society

Furukawa Electric and all companies participating in the Liaison Meeting for Consolidated Environmental Management\*

\* Refer to the List of Companies Participating in the Liaison Meeting for Consolidated Environmental Management.

### **Period Covered**

From April 1, 2007 to March 31, 2008

Includes selected information on past initiatives and activities during fiscal 2008.

## **Editorial Policy**

Furukawa Electric first started to issue Environmental Reports in fiscal 2000. Reflecting the growing need to also disclose information relating to social matters in recent years however, we decided to change the name of our fiscal 2006 publication to the Environmental and Social Report. Following organizational reforms in February 2007, we established a CSR Division and have since stepped up our CSR management activities. We consequently renamed this publication the "CSR Report" in 2007 and have since included information covering a broader range of areas, including both social and financial matters.

This Report has been compiled with reference to the Environmental Reporting Guidelines (Fiscal 2007 version) published by the Ministry of the Environment.



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

Company Name	Environmental Accounting
Access Cable Company	0
Asahi Electric Works Co., Ltd.	0
Inoue Manufacturing Co., Ltd.	0
NTEC Ltd.	0
F-CO Co., Ltd.	
FCM Co., Ltd.	
Okano Electric Wire Co., Ltd.	0
Okumura Metals Co., Ltd.	0
Kyowa Electric Wire Co., Ltd.	
The Zaikoo Co., Ltd.	
Sunsunny Industry Co., Ltd.	
Shodensha Co., Ltd.	0
Seiwa Giken Inc.	
Totoku Electric Co., Ltd.	0
FITEC Corporation	
Furukawa Automotive Systems Inc.	0
Furukawa Circuit Foil Co., Ltd.	0
Furukawa Sangyo Kaisha Ltd.	
Furukawa C&B Co., Ltd.	
Furukawa Industrial Plastics Co., Ltd.	0
Furukawa-Sky Aluminum Corporation	0
Furukawa Precision Engineering Co., Ltd.	
Furukawa Engineering & Construction Inc.	0
Furukawa Techno Material Co., Ltd.	0
The Furukawa Electric Engineering Service Co., Ltd.	0
Furukawa Electric Industrial Cable Co., Ltd.	0
The Furukawa Battery Co. Ltd.	0
Furukawa Logistics Corporation	
Furukawa Life Service Inc.	
Miharu Communications Inc.	0
Riken Electric Wire Co., Ltd.	0

Companies marked with a " $\bigcirc$ " in the Environmental Accounting column implement

## Inquiries

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\*1) T.H. Furukawa Electric Co. Ltd. became the Hachinohe Plant of the Access Cable Company in April 2008.

\*2) Furukawa Infonet Products Co. Ltd. changed its name to Furukawa C&B Co. Ltd. in December 2007 and assumed control of business activities from Broad Wireless Corporation in April 2008.

## Message



## Striving towards a sustainable society through social contribution activities and environmentally friendly product development

Masao Yoshida

President & Chief Operating Officer

(Masao Yoshida

Through tireless technological innovation revolving around our core material capabilities built up over more than a century, we at the Furukawa Electric Group have continued to work towards our vision of becoming a highly profitable corporate group with a strong global presence whilst consistently basing our operations on an underlying philosophy of contributing to the realization of a genuinely successful and sustainable society.

In the face of mounting global issues such as the environment and poverty, we recognize that our activities as a company depend on the development of a sustainable, stable society. We will therefore continue to contribute to society through the further advancement of Furukawa Electric's technology and the development of products that will help preserve the environment and enrich people's lives.

As President, I have set out a five-pronged policy for the Furukawa Electric Group for fiscal 2008; (1) reinforcing our business foundations, (2) improving product capabilities to ensure that we are our customers' first choice, (3) restructuring our business portfolio, (4) stepping up environmental initiatives and social contribution activities and (5) raising awareness of the Group Philosophy and reforming our corporate culture. The first of these goals, reinforcing our business foundations, will include emphasizing underlying safety and quality, stepping up internal control activities and prioritizing compliance and reflects my intention to focus on the fundamental aspects of our business.

I have earmarked the process of stepping up environmental initiatives and social contribution activities as one of my top priorities for this year in particular. In terms of environmental initiatives, we will continue to work towards reducing greenhouse gas emissions and achieving zero emissions based on the 3Rs, whilst also developing environmentally friendly products and promoting green procurement. As 2008 marks the beginning of the first commitment period under the Kyoto Protocol, we intend to tackle the global issue of reducing greenhouse gases, with renewed determination. In addition to stepping up the pace of the various measures that we have implemented to date, this year we are also

aiming to focus extensively on the promotion of new concepts and more effective initiatives. We will ensure that all of our initiatives, including contributing to the development of energy efficient environmentally friendly products and participating in Team Minus 6%, are implemented on a groupwide basis at all of our manufacturing and non-manufacturing bases.

In terms of social contribution activities, in May we set out the Furukawa Electric Group Basic Policy on Social Contribution Activities and outlined our commitment to consistently and tirelessly undertake social activities, revolving primarily around three categories; nurturing future generations, promoting sport and culture and living side by side with local communities. In addition to contributing to society through our core business activities, we also intend to harness the extensive human resources and facilities at the Furukawa Electric Group's disposal in order to help create a sustainable society and strengthen the bonds that we have built up with local communities over more than a century.

Having set out a medium-term business plan in the form of Innovations 09, the Furukawa Electric Group will continue to make every effort to sustain R&D and capital investment, particularly in our four priority fields (the auto industry, electronic components, photonics/network technology and the environment), and improve asset efficiency through initiatives such as reducing inventory assets and accounts receivable, with our sights set on the target of consolidated sales of ¥1.25 trillion in fiscal 2009.

Based on the notion that corporate value depends on the balance that a company strikes between profitability, environmental protection and social contribution (the so-called "triple bottom line"), we intend to focus on communication with our customers, employees, shareholders, members of local communities and all of our other stakeholders in an effort to develop our business and achieve our targets in line with the needs and expectations of society as a whole.

We look forward to receiving your honest feedback regarding our initiatives.



## Expanding CSR activities so as to respond quickly and effectively to society's needs and environmental changes

Tetsuya Sato

Director, Member of the Board, Chief Social Responsibility Officer

In light of a spate of product-related and corporate scandals, earthquakes and other natural disasters and the increasing globalization of corporate activities, companies are facing stricter requirements to fulfill their social responsibilities than ever before. In addition to reliably carrying out their core business operations, including guaranteeing the safety and quality of products and services and ensuring compliance, companies also have a responsibility to protect the environment and contribute to their local communities and society as a whole.

Based on an underlying desire to ensure that the Furukawa Electric Group as a whole contributes to the realization of a genuinely successful and sustainable society in accordance with our new Group Philosophy and Basic CSR Policy, we continue to promote business activities geared towards striking a three-way balance between profitability, environmental protection and social contribution. We have therefore established a CSR and Risk Management Committee (run by the CSR Division) consisting of the Chairman, President, Company Presidents and Chief Officers under the supervision of the Board of Directors, the core of our corporate governance operations. This enables our management staff to implement CSR and risk management activities based on a groupwide framework.

In addition to planning, implementing and providing support for measures ranging from compliance, risk management and safety through to environmental and social contribution activities, our CSR Division also monitors groupwide activities and takes appropriate action as and when necessary to ensure that our CSR activities run smoothly and effectively.

Our main initiatives at present include organizing training in areas such as legislation and corporate ethics, reinforcing compliance, assessing groupwide risks and formulating business contingency plans (BCP), ensuring quality control, managing key risks in areas such as information security, reducing energy consumption and CO2 from production and shipping, contributing to life cycle assessment (LCA) through initiatives such as the development of lightweight products, expanding our range of eco-products on

a groupwide basis, putting the 3Rs into practice (e.g. reducing waste), implementing groupwide soil pollution measures, promoting green supplier schemes and CSR procurement initiatives, opening up our facilities for use by local communities, taking part in local events and actively promoting employment for people with disabilities.

In addition to providing further details of these and other initiatives in this CSR Report, we make the most of every opportunity to meet and discuss business activities with our stakeholders, including at events such as last year's Furukawa Innovation Expo '07 and various exhibitions and presentations. We also make every effort to provide our overseas stakeholders with details of our activities through the distribution of an English version of this CSR Report via our overseas bases and other facilities. We hope you will all continue to provide us with feedback and keep us informed of any requests.

We will continue to improve communication with all of our stakeholders, who represent the cornerstone of our CSR activities, and expand the Furukawa Electric Group's CSR activities as a whole so as to respond quickly and effectively to society's needs and environmental changes in the future.

## The Furukawa Electric Group Basic CSR Policy

Each of the companies that make up the Furukawa Electric Group undertakes CSR activities in accordance with the following basic Group policy.

## **Basic Policy**

We fully recognize the responsibilities of the Furukawa Electric Group to society and will strive to maintain and improve on solid, friendly relationships with all of our stakeholders and contribute to the sustainable development of society through corporate, environmental and social activities.

We carry out all of our activities in line with the above policy, striking a balance between corporate, environmental and social contribution activities.

As a basic philosophy underpinning our CSR activities, we have also prepared a set of Furukawa Electric Group Action Guidelines.

## Furukawa Electric Group Action Guidelines

The officials and employees of the Furukawa Electric Group will perform their duties in accordance with the following action guidelines.

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

- (1) Fully recognize the responsibilities of the Furukawa Group to society and strive to maintain and improve on solid, friendly relationships with all of our stakeholders and contribute to the sustainable development of society through corporate, environmental and social activities.
- (2) Aim to create a company that is useful to society by developing products designed to aid the development of society and by providing reliable products and services.
- (3) Comply with domestic and international laws and regulations and act in accordance with internal regulations and other rules such as social norms and ethics.
- (4) Properly display and adequately disclose financial statements and other corporate information.
- (5) Deal with antisocial groups in a resolute manner.
- (6) Strive to act with consideration for the protection of the global environment.
- (7) Respect human rights, cultures and traditions as a member of the international community.
- (8) Create a company whose employees feel motivated, comfortable and fulfilled.
- (9) Continuously strive to undertake social contribution activities based around the core aims of nurturing future generations, promoting sport and culture and living in harmony with local communities, as well as business-related activities, in order to maintain and strengthen community ties built up over centuries and create a better tomorrow for future generations.

Our CSR Code of Conduct meanwhile acts as a set of standards for specific conduct.

## **CSR Code of Conduct**

- (1) Compliance with legislation and restrictions
- (2) Reliable, safe and environmentally friendly products and services
- (3) Fair competition
- (4) Compliance with overseas business and international trade legislation and restrictions
- (5) Information management and adequate disclosure
- (6) Respect for health, safety, human rights and the rights of others
- (7) Executive and employee duties

## Corporate Governance

## Board of Directors and Board of Corporate Auditors

The Board of Directors holds regular board meetings each month and extraordinary board meetings as and when necessary to speed up decision making. There is also a support structure in place enabling outside directors and auditors to attend meetings provided that they have a sufficiently in-depth understanding of the issues being discussed, with the opinions of outside officials respected as part of the decision making process. It is through measures such as these that we ensure that the Board of Directors is able to suf-

ficiently function in an operational monitoring and supervisory capacity as the core of our corporate governance operations. We have also set up a CSR and Risk Management Committee under the supervision of the Board of Directors, consisting of the Chairman, President, Company Presidents and Chief Officers. This acts as a framework for the promotion of CSR and risk management activities from an overall groupwide perspective.

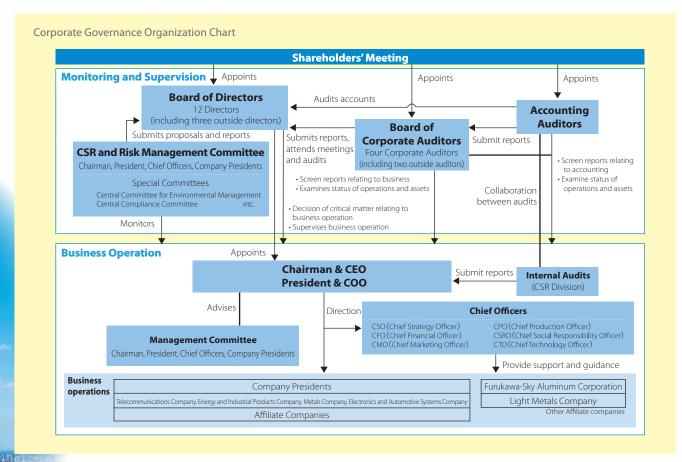
We place great importance on the function performed by our Corporate

Auditors and Board of Corporate Auditors, which are independent of the Board of Directors, and have incorporated the establishment of a Board of Auditors into the institutional design of the Company itself. Based on close collaboration between our Corporate Auditors, Accounting Auditors and the CSR Division, which acts as our auditing department, including sharing information and exchanging opinions, we continue to make every effort to strengthen our auditing capabilities.

## **Operational Performance**

Our operational structure is based on a company system and a chief officer system. Under the supervision of the President, who is responsible for overall operational performance, operations are run by the Company Presidents and operations relating to matters such as groupwide strategies, resource allocation and administration are handled by the relevant Chief Officer. Details of such

operations are then reported back to the Board of Directors on a quarterly basis.



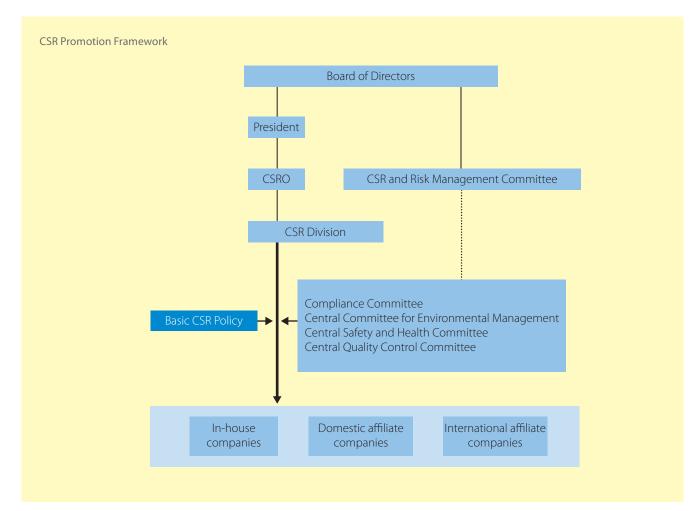
## **CSR Management**

### **CSR Promotion Framework**

To strengthen and improve our CSR activities, the Furukawa Electric Group established a CSR Division, headed by a Chief Social Responsibility Officer (CSRO). The CSR Division consists of an Auditing Department, an Export Security Administration Department, a Safety and Environment Promotion Department and an Administration Department. In

addition to stepping up all-round monitoring of corporate activities from the standpoint of CSR, encompassing areas from internal control, compliance and risk management to safety, environmental protection and social contribution, and undertaking CSR activities on a standardized basis, we now have the framework in place to be able to take any necessary

action should problems arise, for example investigating allegations and the causes of problems, instituting remedial or preventive measures and releasing statements, to deal with all eventualities quickly and appropriately.



In addition to our CSR activities, the Furukawa Electric Group has also set up a Quality Promotion Department under the supervision of our Chief Production Officer (CPO). We are undertaking quality control activities for all of our products, which represent the foundations of our

social responsibilities as a manufacturer.

Elsewhere, we are putting in place the necessary framework in response to the so-called Japanese SOX Act, revolving primarily around an established project team, and are making every effort to enhance our corporate value through

the establishment of a comprehensive internal control system, including steps such as striving to maintain and improve the reliability of financial reporting on a groupwide basis.

## Compliance

## Compliance

The Furukawa Electric Group defines compliance as "going beyond simply abiding by laws and regulations by acting in accordance with the values and ethics required of the Company and its employees as responsible members of society."

Working to the Furukawa Electric

Group Action Guidelines as our basic philosophy on ethical and legal compliance, we continue to promote in-house education, inspections to prevent any infringements on the law and a range of other compliance-related activities. We have put together a Central Compliance

Committee, chaired by the Chief Social Responsibility Officer (CSRO), to organize the promotion of compliance activities, with subordinate compliance committees also in place at individual works and branches around the country.

## **Compliance Education**

Having compiled a set of CSR Code of Conduct and CSR Code of Conduct Manual containing additional explanations, both based on our Furukawa Electric Group Action Guidelines, we combined the publications with a message from the President into a booklet called the CSR Compliance Handbook, which we

distribute to all officials and employees as part of our ongoing educational schemes targeting compliance in the workplace. We also organize compliance training for newly appointed directors, management staff and new recruits.



**CSR Compliance Handbook** 

## **Internal Reporting System**

To enable early detection of compliance violations and corrective action, we operate a system whereby company officials and employees can file anonymous reports directly with the Central Compliance Committee (namely, an internal reporting system). Using a proprietary system developed by Furukawa

Electric, the system includes features such as the ability to receive reports whereby the reporting party remains anonymous whilst still exchanging emails between the reporting party and the Company, including feedback to the reporting party on the Company's response to the matter.

We have also set up an external report-

ing system via an outside organization. The findings of investigations into reported matters and details of the Company's response are reported to the Board of Directors as appropriate.

## Risk Management

The CSR and Risk Management Committee runs risk assessments every year to identify any potential risks. All risks facing the Group are then assigned an order of priority. The CSR and Risk Management Committee devises response plans for major groupwide risks and monitors progress accordingly in an effort to minimize risks.

In fiscal 2007 we started to formulate a business contingency plan (BCP) to be implemented in the event of a large-scale natural disaster or similar event and put in place an initial response framework, including the introduction of a system to confirm the safety of all employees. Over the course of fiscal 2008, we will continue to expand our large scale natural disaster BCP and start working on plans in response to an outbreak of a new strain of influenza.

## Furukawa Electric Group Overview and Financial Report

Furukawa Electric was established in 1884, at which time it dealt mainly in electric wire and wrought copper products. These days, Furukawa Electric operates on a global scale in five businesses: telecommunications, energy and industrial products, metals, electronics and automotive systems and light metals.

## Corporate Profile

Name: The Furukawa Electric Co., Ltd.

President: Masao Yoshida

Founded: 1884

Sales: 1,174.2 billion yen (fiscal 2007) Number of employees: 37,669 (as of March 31, 2008)

### **Domestic Bases**

### **Head Office:**

2-3, Marunouchi 2-Chome, Chiyoda-ku, Tokyo

Works: 5

(Nikko, Chiba, Hiratsuka, Mie and Osaka)

Branch Offices, Branches and Sales Offices: 10

**Research Laboratories:** 5

(Yokohama R&D Laboratories, Metal Research Center, Ecology & Energy Laboratory, FITEL Photonics Laboratory and Automotive Technology Center)

## Overseas Bases

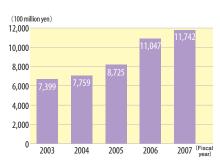
67 bases in 18 countries

Asia: 49 North and South America: 13 Europe: 5

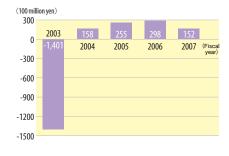


## Results

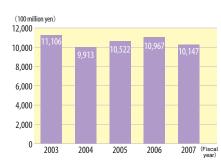




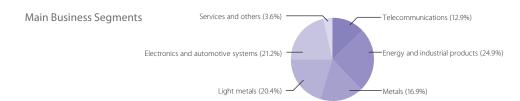
### Net Income

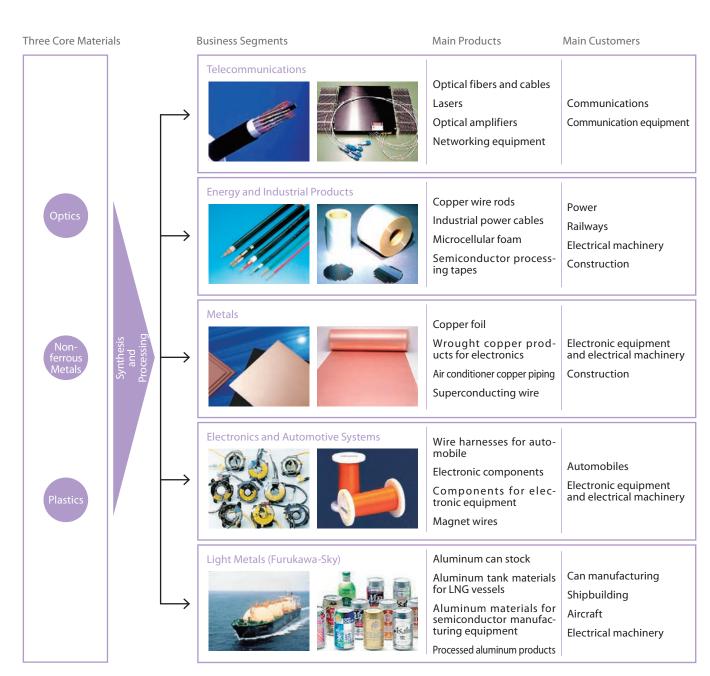


### **Total Assets**



## Main Business Segments





## Relationship with our Customers

## Quality Control Policy

At every stage of our operations, from research and development to manufacturing, sales, customer service and management, in all sections and all hierarchies, we always strive to adhere to a PDCA management cycle based on actual facts, maintain and improve our products, customer service and the quality of our operations and put our management policies into practice.

## A Brief History of Quality Control Activities

Furukawa Electric established a Quality Control Committee in 1949 and commenced educational activities to raise employees' awareness of statistical methods and other aspects of quality control at all our plants. This enabled us to significantly increase quality levels, as well as increasing operational stability and effi-

ciency. Our quality control initiatives were recognized in 1952 as Furukawa Electric was awarded the Deming Application Prize for achieving distinctive performance improvement through the application of TOM.

In an effort to maintain and improve quality levels, we have obtained ISO 9001

quality management system certification in each of our manufacturing divisions, and standardized operations. We continue to make efforts to improve efficiency and other core aspects of our operations and promote activities designed to improve levels of quality and customer satisfaction.

## The Organization for Improved Quality Levels

To guarantee quality at every level throughout the company, we have established a Central Quality Control Committee with direct links to the President to oversee the companywide promotion of quality control activities. We have also set up Divisional Quality Control Committees with direct links to the heads of each division and make every effort to maintain and improve the quality of our products, services and operations so as to offer continual quality assurance.



## **Quality Improvement Activities**

In accordance with our basic policy of putting quality first and implementing uniform companywide quality control, we formulate a companywide quality control policy each year. This then forms the basis for divisional quality control policies in each division.

For fiscal 2008, we have set out a companywide quality policy geared towards eliminating all defects through "DAN-TOTSU" (unrivalled) quality activities. To put this policy into practice, we are promoting quality improvement activities in each division, revolving primarily around preventive activities and efforts to cut costs resulting from in-house failings.

We are also implementing a range of support initiatives, including FR proposal and QC Circle activities.

Taking their name from the "F" of Furukawa Electric and the "R" of renewal, reform and rationalization, FR proposal activities involve employees submitting ideas on how to improve operations. Proposals are then implemented and improvements made in an effort to fundamentally strengthen the company's business. Such activities continue to yield substantial results each year.

QC Circle activities are small groupbased activities that involve all employees and harness QC techniques in an effort to make ongoing improvements in the workplace. Debriefing sessions are held at individual works and on a companywide basis to report back on the results of activities. Such sessions have grown substantially in scale in recent years due to the inclusion of overseas affiliated companies

The Flow of Companywide Quality Control Policy

Fiscal 2008 companywide quality control policy

Fiscal 2008 companywide quality control policy

Eliminating all defects through "DANTOTSU (unrivalled) quality activities"

Preventive activities

Honest onsite implementation based on real products and real situations

Preventive activities to eliminate defects careless mistake prevention, new product audits

Efforts to cut costs resulting from in-house failings

Improvement activities, QC circle activities

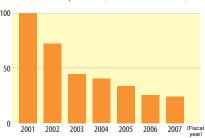
## **Progress with Quality Improvement Activities**

As part of the ongoing range of quality improvement activities we are currently undertaking, we have managed to significantly reduce customer complaints. We have successfully reduced complaints to 27% of levels in fiscal 2001 (as of fiscal 2007). In response to an array of increasingly sophisticated, diverse and complex customer needs, Furukawa Electric com-

bines a wide range of technology, products, services and expertise to help its customers to generate value.

We have received glowing feedback from our customers and have even received awards from numerous clients, including the special award for weight reduction technology from Toyota Motor Corporation.

Customer Complaints (fiscal 2001 = 100)



## Furukawa Innovation Expo '07

A comprehensive Furukawa Electric Group technology exhibition based around the theme "sowing the seeds of value creation", Furukawa Innovation Expo '07 was held on October 3 and 4, 2007 at Tokyo International Forum. The event saw 34 Group companies and four Furukawa Electric companies joining forces to extensively showcase the breadth of the Group's business, the depth of the Group's material technology capabilities and the strength of the Group's ability to drive technology forward into the future. A total of 6,309



Thematic theate



The Advanced Zone: electronics

people visited the event over the two days, with a great many also attending the accompanying special seminars and technical presentations. Despite



Reception for invited guests



The Group network



The Future Zone



being the first such comprehensive technology exhibition in the Group's 123 year history, the event was a huge success.



Welcome lobby



The Advanced Zone: photonic and network technology



Special seminar venue

## Relations with our Shareholders and Investors

Based on two-way communication with our shareholders and investors, we engage in IR (investor relations) activities in an effort to contribute to society and help enhance our value as a company. We set out specific objectives for sustainable growth in March 2006 in the form of our 2006-2009 Medium-Term Business Plan, Innovations 09, and are currently implementing a range of measures geared towards meeting the targets outlined therein, including consolidated sales of ¥1.25 trillion and operating profit of ¥70 billion in fiscal 2009.

## Information Disclosure Policy and IR Framework

The Furukawa Electric Group Action Guidelines state that we will "maintain and improve upon solid, friendly relationships with all of our stakeholders." Regulations on the Timely Disclosure of Corporate Information meanwhile set out a framework for the disclosure of appropriate information at the appropriate time.

All IR activities are overseen by the

Chief Financial Officer (CFO) and are managed by the Investor & Public Relations Unit of the Corporate Strategy Planning Department.

## Relations with Institutional Investors and Securities Analysts

In addition to holding management briefings (covering interim and year-end results and medium-term plans) for institutional investors and securities analysts, both domestic and international, we actively organize meetings all year round. Through results briefings, overseas roadshows and other activities, we engaged in communication with a total of 899 institutional investors and securities analysts over the course of fiscal 2007 (an increase of 100 compared to fiscal 2006). As of the end of March 2008, the percentage of company shares held by overseas investors stood at 22.64%.

### Main IR Activities in 2007

January	
February	Third quarter earnings announced
March	Tours of overseas plants
April	
May	Annual earnings announced; Roadshows in US and Europe
June	General Shareholders Meeting
July	
August	First quarter earnings announced
September	Roadshows in Asia; Conference in US and Europe
October	Furukawa Innovation Expo '07
November	Interim earnings announced; Roadshows in Asia
December	Tours of overseas plants



End of year briefing session

## Relations with Individual Investors

In fiscal 2007, we substantially upgraded the Furukawa Electric website (http://www.furukawa.co.jp/zaimu). We improved the shareholder and investor information section of the website in particular by incorporating a Quick Guide to Furukawa Electric and a Frequently Asked Questions feature to help people get to know the company a little better and uploading a range of documents and the latest information for individual investors. Please feel free to take a look.

We have also put in place a system to enable the timely disclosure of important information, including through a registration-based email IR newsletter service. In recognition of our efforts, the Furukawa Electric website was ranked number one in the nonferrous metal category of the 2007 ranking of listed company websites published by Nikko Investor Relations. As of the end of March 2008, we had a total of 67,698 individual shareholders (an increase of 2,572

on the previous year), accounting for 28.7% of company shares.



The shareholder and investor information (IR) section of the website

## Trends in Shareholder Distribution



## **Returning Profits to Shareholders**

In addition to operating a stable dividend policy, we also aim to pay out dividends in line with the medium- to long-term growth strategy set out under our 2006-2009 Medium-Term Business Plan: Innovation 09.

During fiscal 2007, we paid out interim and end of year dividends of 3.5 yen per share apiece, making a total of 7.0 yen per share, representing a year-on-year dividend increase of 0.5 yen per share.

## Relations with our Suppliers

## Striving to ensure optimum purchasing on a steady, ongoing basis

Our purchasing policy here at Furukawa Electric is to "establish strategic relationships with suppliers to ensure optimum purchasing on a steady, ongoing basis." Although we have always placed a great deal of importance on cooperative relationships with our suppliers, we believe that supplier relations are becoming even more important in terms of making sustainable development a reality. We therefore introduced a supplier evaluation scheme and started to hold Supplier Meetings in fiscal 2006 in an effort to select suppliers based on more strategic, transparent criteria.

## Supplier Meetings and Supplier Evaluation Scheme

Following on from the first meeting in fiscal 2006, we held our second Supplier Meeting in October 2007. We used the event, which was attended by approximately 400 of our major suppliers, to provide an overview of the company and outline our purchasing policy, as well as giving a presentation on the history of technical development at Furukawa Electric in an effort to help our suppliers develop a better understanding of our unique technology. We also explained

details of our supplier evaluation scheme.

Our supplier evaluation scheme covers areas such as quality, price, speed of delivery and the reliability of individual suppliers. In fiscal 2007 we were able to strengthen mutual understanding and establish a clearer picture of the current situation by providing each supplier with feedback based on their evaluation results and exchanging opinions. We plan to continue to hold Supplier Meetings and evaluate our suppliers in order to

strengthen cooperation with individual suppliers and establish relationships that are conducive to mutual sustainable development.

## Furukawa Electric Purchasing Policy (outline)

- We will establish strategic relationships with suppliers to ensure optimum purchasing
- We will guarantee the reliability and safety of materials and supplies and their steady procurement
- We will employ purchasing methods closely linked to production methods
- We will implement global procurement
- We will engage in green procurement and enforce compliance



This year's Supplier Meeting

## Promoting CSR Activities in Relation to Procurement

Furukawa Electric promotes compliance initiatives as part of the procurement of materials and supplies in accordance with the Furukawa Electric Group Action Guidelines. We have also added a new section to the supplier screen on our purchasing system to encourage indi-

vidual suppliers to provide details of their latest CSR initiatives. We intend to promote CSR-oriented procurement whilst maintaining cooperative relationships with individual suppliers in the future.

## Relations with our Employees

## Relations with our Employees

## Personnel Management Policy

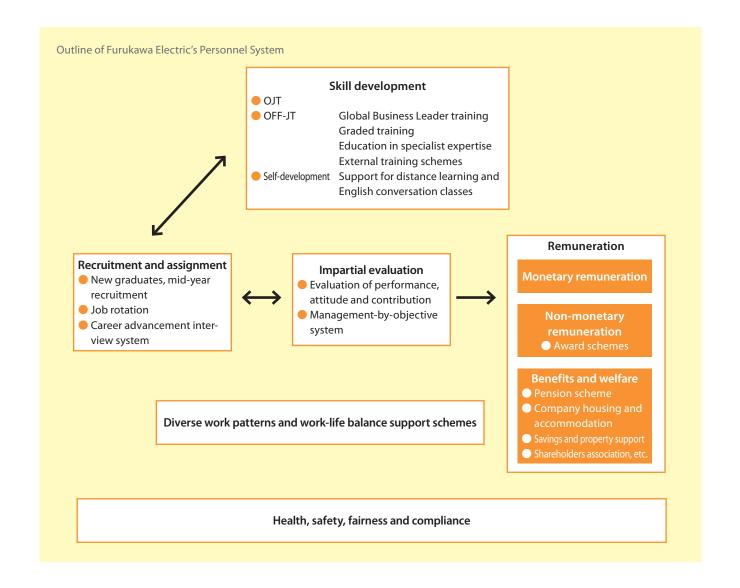
Our basic personnel management policy is geared towards creating human resources who are capable of putting five principles set out in the Furukawa Electric Group Credo into practice.

If individual employees abide by applicable laws and rules, act in accordance with their social and moral responsibilities and interact with others fairly and honestly, we will be able to establish safe, healthy working environments and work-

places that are free from irrational discrimination and harassment. We believe that this is crucial in order to get the most out of the abilities that our employees have to offer. Based on these foundations, we are aiming to bring out employees' creativity by devising a personnel system that will harness employees' various abilities and individual personalities, through initiatives such as equal treatment irrespective of age or gender and support

schemes to enable employees to achieve a work-life balance.

By combining all of our employees' individual abilities, creating jobs suited to current needs and providing safe products, we are striving to contribute to a sustainable society and create a company that both motivates its employees and fills them with pride.





## Diverse Work Patterns and Work-Life Balance Support Initiatives

In addition to operating a number of schemes in support of employees' diverse working patterns, we also continue to review areas such as labor management and personnel systems to enable them to reflect a similar approach in light of Japan's dwindling birth rate and aging society. As well as striving to enhance our employees' working lives, we also work together with our employees to actively support their personal lifestyles and help them stay in good health through educational and other initiatives.

In recognition of measures implemented as part of our first phase plan (fiscal 2005-06) in accordance with the Law for Measures to Support the Development of the Next Generation, in fiscal 2007 we were accredited as a company that actively supports the development of the next generation. As part of our second phase action plan (fiscal 2007 onwards) meanwhile, we have significantly relaxed requirements to make it easier for male employees to take paternity leave. We have also established a system for the provision of financial support whereby

employees will be able to use carriedover leave in place of maternity/paternity leave of for the purposes of looking after their children. As it stands, we are now entering the implementation stages of our second phase action plan.

Diverse Work Pattern and Work-Life Balance Support Schemes

Scheme/educational initiative	Purpose and details
Flexible working hours	We provide lifestyle support to enable employees to work efficiently in line with business demand and strike a work-life balance.
Annual paid leave	We provide employees with up to 25 days annual paid leave (e.g. if an employee has been with the company for 11 years or longer)
Consecutive leave	We allow all employees to take three days consecutive leave every year providing that it does not exceed their annual paid leave entitlement. Employees can obtain an additional two days every five years (up to a maximum of five consecutive days).
Half-day paid leave	Paid leave may be taken in half-day units to enable employees to take care of minor personal errands on week days.
Congratulatory or condolence leave	We operate a congratulatory and condolence leave scheme whereby, for example, an employee can take five days paid leave if their wife gives birth to a child.
Carried-over leave	Up to ten days of annual paid leave can be carried over, for up to five years, and can be used if an employee is ill, providing nursing care, on maternity/paternity leave or looking after their children.
Maternity/paternity leave (and reduced working hours)	We provide support over and above legal requirements to enable employees to strike a work-life balance, including partial pay during maternity/paternity leave and the option for employees to work reduced hours thereafter until their child reaches elementary school age.
Nursing care leave (and reduced working hours)	We provide support over and above legal requirements to enable employees to strike a work-life balance, including enabling employees to take nursing care leave (or the option of working reduced hours) for up to a year at partial pay.
Reemployment after retirement	We operate a reemployment scheme for any employees aged 60 or over who are in good health and wish to remain in work. The duration of reemployment is being increased in phases, with employees ultimately entitled to be reemployed up to the age of 65 (in response to revised legislation in 2006).
Retirement seminars	We, labor and management, jointly organize seminars every year to provide support to help middle- aged and older union members (those aged 50 or older as a rule) to make the most of their time in work and plan for their life after retirement.
Middle-age seminars	We, labor and management, jointly organize seminars every year to provide individual support to help middle-aged employees (those aged 40 or older as a rule) to stay fit and healthy, including measures to prevent illness.

## Recruitment

The table on the right shows figures for the number of employees recruited over the last five years. As we continue to expand our business in line with society's needs, we intend to continue to secure personnel to act as the driving force enabling us to sustain and develop our business in the future, particularly fair-minded, enthusiastic personnel with high ethical standards who are willing to take on new challenges.

Recruitment l	(People)				
Fiscal year	2004	2005	2006	2007	2008
New graduates	34	32	53	71	85
(Female new graduates)	3	2	6	8	10
Mid-year recruits	0	1	10	14	Unknown
Clerical staff	1	2	0	10	Unknown
Professional staff	0	0	47	50	29

<sup>\*</sup> Figures for fiscal 2008 refer to numbers of new

## **Employment for People with Disabilities**

Although we currently exceed the 1.8% statutory target rate of employment for people with disabilities (1.84% as of March 2008), we continue to actively promote employment



A group of Furukawa New Leaf workmates share a smile (Chiba Works)

for people with disabilities. Furukawa New Leaf, a special subsidiary established in 2004, handles cleaning operations at our Hiratsuka Works on a subcontract basis and has a workforce that includes ten employees with disabilities. Operations were expanded even further in fiscal 2007, with eight people with disabilities now employed at our Chiba Works as well.

We plan to continue to expand employment for people with disabilities via special subsidiaries and at Furukawa Electric in the future, with an eye to substantially exceeding statutory targets.

## Number of Employees with Disabilities (as of June 1 each year)



- \* In April 2004, the exclusion rate set out when the rate of employment was calculated was lowered, reducing the rate of employment.
- \* Average rate of employment for people with disabilities on the first of each month from April to the following March.

## Relations with our Employees

## Employee Assignment, Evaluation and Treatment

We make every effort to assign employees and place them in specific positions based on their individual motivation and abilities based on the concept of equal opportunities. As part of such efforts, we operate a range of consultation schemes and give employees opportunities to reflect on their career goals.

In terms of employee evaluation and treatment, we have introduced a personnel incentive scheme to enable employees to be evaluated and treated fairly depending on the abilities that they display and their performance. We are also training managers in performance evaluation and are working on ways for improving the way in which the system is run.

## **Education and Training**

We believe that our strength as a company stems from the synergy of the abilities of each and every one of our employees and that their abilities improve on a practical level through their day to day work duties.

In addition to giving individuals the chance to grow and develop through their work, we also encourage enthusiastic employees to independently develop their skills by providing opportunities such as training, distance learning and support to help them obtain qualifications

In fiscal 2006, we launched the Global Business Leader training program to aid the development of personnel to carry our business forward into the future.

It is through these training opportunities that we are trying to establish a wider awareness of the Furukawa Electric Group Philosophy formulated in fiscal 2007. We also focus on training designed to improve manufacturing capabilities, compliance-related education and human rights education aimed at raising awareness of the importance of respecting human rights and run a number of other training schemes, including training for new recruits and employees being promoted to management positions.

## Health Initiatives

### Mental Health Education

Based on the Guidelines for Promoting Mental Health Care in the Workplace issued by the Ministry of Health, Labor and Welfare, measures revolve primarily around annual mental health courses. Following on from courses for management staff in fiscal 2002 and regular employees in fiscal 2003, a management-led course aimed at sharing expertise with regular employees in fiscal 2004 and

advanced practical courses for management staff in fiscal 2005 and 2006, in fiscal 2007 we organized a stress management course for employees aged between 30 and 35.

## Responding to Asbestos-Related Health Issues

During the period from fiscal 2005 to 2006, we once again investigated work-places that have previously been used to handle asbestos products and organized special medical examinations for all relevant employees. We also sent out notices urging retired employees who worked at the relevant sites to undergo special

medical examinations. Symptoms were detected in one current employee and eight retired employees (for health card applications). Also a retired employee who had worked laying underground cables died from mesothelioma, and in 2006, this was confirmed to be an industrial accident. We have notified retired

employees who worked at the relevant site regarding changes to the requirements for issuing health cards in the wake of revisions to Occupational Health and Safety Regulations in October 2007 and will continue to monitor the situation.

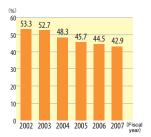
## Healthcare for Employees Working Long Hours

In line with the Labor Standards Bureau's guidelines, "Measures to be Taken by Employers to Prevent Health Impairment Due to Overwork," we are focusing on efforts to ensure that any of our employees working long hours stay in good health, through measures such as (1) enforcing strict work restrictions based on the results of medical examinations and (2) operating a consultation system whereby employees working long hours are seen by a medical officer.

## **Promoting Separate Smoking Areas**

In accordance with a 2003 notification "Concerning the Guidelines for Measures on Smoking in the Workplace," issued by the Director-General of the Labor Standards Bureau, we designated more than 70 smoking rooms in fiscal 2004 in an effort to isolate smoking areas. As a result, the percentage of smokers amongst male employees on a companywide basis fell from 53.3% in fiscal 2002 to 42.9% by fiscal 2007. We intend to continue to make every effort to prevent passive smoking in the future, as well as actively promoting nonsmoking.

Smoking Rate (Male Employees)



## Safety Efforts

We operate according to a set of Companywide Health and Safety Management Guidelines at each of our premises and companies and continue to implement a wide range of safety activities in an effort to eliminate occupational accidents and illnesses.

## Furukawa Electric Group Safety Activities

We established the Safety Management Liaison Meeting in July to oversee safety issues at Furukawa Electric Group manufacturing companies and have since started to implement groupwide accident prevention activities. In addition to holding two meetings, during fiscal 2007 we also organized a tour of the Furukawa Electric Mie Works to assist with the lateral implementation of safety measures. We are aiming to improve

overall safety levels through a combination of preventive measures, such as sharing details of accidents and safety measures and lateral implementation, safety education and full inspections of our works.



A tour of our Mie Works

## Furukawa Electric Safety Activities

### Health and Safety Management System

Furukawa Electric has a Central Health and Safety Committee chaired by the company's Chief Social Responsibility Officer (CSRO), the officer in charge of safety, and promotes health and safety activities on a companywide basis. We also have individual Health and Safety Committees at each works, chaired by the head of the relevant works, and implement both standardized companywide activities and independent works activities.

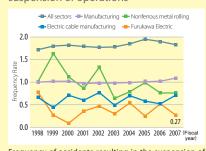
### Companywide Priority Safety Activities

We have formulated a number of standardized companywide priority safety targets and are working to prevent industrial accidents in an effort to improve safety levels at all Furukawa Electric works.

### Companywide Priority Safety Targets for fiscal 2007

- · Reduction of accidents due to unsafe practices
- · Promotion of operational standardization
- · Comprehensive health and safety education for transferred personnel and temporary workers

## Frequency of accidents resulting in the suspension of operations



Frequency of accidents resulting in the suspension of operations = (number of deaths or injuries/total working hours)  $\times$  1,000,000

### Companywide Health and Safety Group Presentation Meeting

We undertake health and safety improvement activities at each of our manufacturing sites and individual workplaces. 11 groups selected by individual works then attend a meeting at our Osaka Works to present the results of their activities.



Companywide Health and Safety Group Presentation Meeting

### Forklift Truck Safety Skills Competition

We hold companywide competitions aimed at promoting and improving safe and steady forklift truck driving skills. A total of 18 drivers from individual works and affiliated companies competed in this year's competition.



Forklift Truck Safety Skills Competition

## Involvement with Society and Local Communities

## Formulating a Basic Policy on Social Contribution Activities

In May 2008 we set out the Furukawa Electric Group Basic Policy on Social Contribution Activities.

Although the Furukawa Electric Group has long since been involved in a range of community-based social contribution activities, we intend to step up activities even further and fulfill our responsibilities as a member of society in the future, focusing primarily on three newly determined targets; nurturing future generations, promoting sport and culture and living side by side with local communities.

## Furukawa Electric Group Basic Policy on Social Contribution Activities

The Furukawa Electric Group will uphold and strengthen the bonds built up with local communities over more than a century and consistently and tirelessly undertake social contribution activities, focusing on nurturing future generations, promoting sport and culture and living side by side with local communities as well as contributing to society through its core operations, to help create a better world for future generations.

## Support and Assistance

We provide support and assistance for victims of natural disasters and through environmental foundations and other such organizations.

	Details of support/ assistance
Donations in support of the Sichuan earthquake	¥20 million
Donations in support of the Niigataken Chuetsu-oki earthquake	¥3 million
Chiba Environmental Restoration Fund	¥336,000

\*We are also involved in and provide support for soil pollution funds and various other environmental organizations.

In other areas, we are engaged in activities such as providing support for welfare facilities and to enable people with disabilities to be a part of and reintegrate themselves into society.

We organize a charity golf tournament for employees at our Chiba Works every year and donate the proceeds to causes such as the Ichihara Social Welfare Council and earthquake victims.

### Awards from Outside Sources

## Honda Award for the Development of Recycling Technology

At the 2007 National Convention of the Institute of Electrical Engineers of Japan, we received the 12th Honda Award for the Development of Recycling Technology from the Clean Japan Center for the development of recycled insulated OC wire made from cross-linked polyethylene, announced as part of a three-way joint venture with Tokyo Electric Power Company and VISCAS Corporation. The award is open to domestic researchers and engineers who have published outstanding results relating to the development of 3R (reduce, reuse and recycle) technology and came in recognition of our achievement in becoming the first company in the world to recycle cross-linked polyethylene (XLPE) into wire sheathing material.



The award ceremony fo the 12th Honda Award for the Development of Recycling Technology

## Special Award for Weight Reduction Technology at the Toyota Global Supplier Meeting

At the Toyota Global Supplier Meeting at the Nagoya Congress Center in February 2008, Toyota Motor Corporation outlined its 2008 global procurement policy to 441 assembled suppliers and held an award ceremony for suppliers receiving awards during fiscal 2007. We received the special award for weight reduction technology, which were presented to President Hiroshi Ishihara by Toyota President Katsuaki Watanabe.



President Ishihara is presented with a shield by Toyota President Katsuaki Watanabe

## Kanagawa Prefectural Government Community-Oriented Factory Award

In December 2007, our Hiratsuka Works received the Community-Oriented Factory Award from Kanagawa Prefectural Government. Presented to factories, research institutions and other facilities actively striving to contribute to and coexist



alongside their local communities, awards were given to a total of six facilities in Kanagawa prefecture.

## Minister of Health, Labor and Welfare Award

In conjunction with an adjoining facility for the disabled, Asahi Electric Works' Nagai Plant (Nagai, Yamagata prefecture) has been running workplace training schemes aimed at helping people with disabilities to reintegrate themselves into society for around 30 years now. At a national mental health and welfare event in October 2007, the plant received a Minister of Health, Labor and Welfare

Award in recognition of its local community and welfare activities.



## Local Community Clean-up Activities

We actively engage in clean-up activities in and around the local communities in the vicinity of each of our works and plants, as well as nearby coastal, riverside and other locations.



Clean-up campaign along the Inukamigawa River (Furukawa Automotive Systems)



A joint patrol around the area in the vicinity of Kanda station (Furukawa Logistics)



Volunteer clean-up activities on the Usuiso coast in Iwaki (Furukawa Battery)



Clean-up campaign at Suzukatoge (Mie Works)

## Communicating with the Community

We play an active part in community events and also invite the likes of employees' families and local residents to festivals and other events held on company premises in an effort to strengthen community ties and promote exchange.



Our exhibit at Eco Fair Ichihara (Chiba Works)



Our exhibit at the Hiratsuka Environmental



Our exhibit at Techno Fair (Hiratsuka Works)



Taking part in sports day at a school for disabled children (Furukawa Circuit Foil)



Nikko Waraku Odori Dance (Nikko Works)



Summer Festival (Mie Works)

We invite students and teachers from local elementary and junior high schools and employees' families to come and take tours of our works and also actively participate in work experience schemes for junior and senior high school students.



A tour for elementary school students (Chiba Works)



A family tour (Mie Works)



A work experience scheme for junior high school students (Shodensha)

As part of a company spirit training scheme at our Chiba Works, we took on a teacher from Goshogawara Industrial High School in Aomori prefecture for a period of one year from April 2007. The aim of this scheme is to enable teachers to experience the workings of a private company for themselves so that they can provide students with better career guidance and help prevent job mismatches when new recruits join the company.

The teacher experienced work in four areas of the works (the shop floor, maintenance, development and site management) and gave a presentation summarizing his experiences at the end of the year.



Measurement experience (Production Technology Development



With the Site Manager

## Involvement with Society and Local Communities

## Social Contribution Activities Overseas

We continue to actively promote social contribution activities at Furukawa Industrial S.A. Produtos Eletricos (FISA) in Brazil. Activities during 2007 included the following.

### 1 Child Development Program for the Future

The main aim of this program is to teach local children aged between 10 and 15 who live in potentially dangerous, poverty stricken areas the basic skills they need as members of society, to motivate them and encourage self-development.

### Stage I (started in 2004)

Children come to the FISA workers' union for half a day three times a week for classes in subjects such as English, math, music and computer skills, taught by volunteers from FISA. Seventeen children participated in 2007, receiving a total of 340 hours of education.

### Stage II (started in 2006)

Children who have taken part in Stage I (above) over the last three years come in on Saturday afternoons for classes in subjects such as handicrafts, karate, athletics, dance and singing, again taught by volunteers from FISA. 52 children participated in 2007, receiving a total of 100 hours of education.

## 2 Support for local municipal elementary and junior high schools

Children from local schools are invited to take part in events organized by the FISA workers' union and presents are given to 500 students twice a year (at Christmas and Easter).

## 3 Blood donation program (started in 2004)

A total of 62 bags of blood were donated over the course of 2007.

## 4 Donations to public hospitals (equivalent to 1% of income tax)

The company donated 65,000 real in 2006 and 67,000 real in 2007 in an effort to help increase the number of children's bed available.

### 5 Food and clothing donations

Clothing and 400kg of food were donated to hospitals over the course of 2007



English class



Dance class



Computer class



Karate class



Singing class



landicrafts class

## Social Contribution Activities at Individual Works

## Chiba Works Working together to put an end to global warming



Toru Kumabe Manager, Chiba Works

We are working to reduce CO<sub>2</sub> emissions at the Chiba Works based on the slogan "putting an end to global warming." We are tackling this issue in various different ways, from major improvements to our facilities, including switching fuel from heavy oils and LP gas to city gas (natural gas) and replacing old equipment with new energysaving technology, to improvements on a day to day level, including diligently turning off lighting, computers and other equipment when not in use and introducing "Cool Biz" and "Warm Biz" schemes to conserve energy from air

As a result of our efforts to create a "beautiful natural environment" last year, we have now completed our Welcome Garden. We hope that this will send out a clear environmental message not only to our employees but also our customers and local residents, acting as proof that we

have made our works into a green environment that exists in harmony with the community. Please feel free to stop by and have a look next time you visit the Chiba Works.

In an effort to contribute to and work in harmony with the local community, we are also actively involved in a range of ongoing initiatives, including environmental education as part of tours for local elementary school children and employees' families, participating in Eco Fair Ichihara,



schemes aimed at making the area more beautiful and taking part in the Yawata Seaside Festival.

The Welcome Garden

## Nikko Works Running on over 90% natural energy

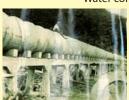


Hiroyuki Kamishiro Manager, Nikko Works

The origins of the Nikko Works can be traced back to the nationalized production of electrical cables required for the industrial revival during the Meiji era (1868-1912). Crude copper had to be extracted from Ashio Copper Mine and mass produced to make electrical copper pure enough to be used in wiring. At that time, the only option was to secure the large volumes of water and electricity required to manufacture electrical wiring directly. Hydraulic power plants were therefore built to harness the power of the Daiyagawa River and other river systems. This provided a supply of industrial water and led to the establishment of the Nikko Works.

Despite the fact that the works has always consumed a massive amount of energy, from its establishment right through to the present day, over 90% of that energy is covered by hydraulic power, making it an environmentally friendly works that doesn't even use much regular or tap water. Faced with the pressing worldwide challenge of combating global warming, we undoubtedly owe a debt of gratitude to our ancestors' foresight. We fully intend to preserve this approach to contributing to society for future generations as well.

### Water conduit pipes





During the Taisho era (1912-1926)

## Hiratsuka Works Small-scale full-participation social contribution campaign



Hiroyuki Yokotachi Manager, Hiratsuka Works

Thanks to advances in health care, medical and welfare services in Japan in line with the country's rapid postwar growth, the number of infant mortalities has fallen substantially. Although we are fortunate enough to lead a peaceful existence here in Japan, we must not forget that a great many children the world over lose their lives because they require just a little bit more medical care or support. In August 2007, we at the Hiratsuka Works launched a small-scale full-participation social contribution campaign whereby employees collect used plastic bottle tops, which are then converted into vaccines to immunize children around the world against polio courtesy of the NPO Re-Lifestyle.

As vaccines cost approximately ¥20 per person, it takes roughly 400 bottle tops (around 1kg) to save the precious life of one child. As of March 2008, our activities here at the Hiratsuka Works have saved the lives of around 270 chil-

I was really moved upon hearing about this campaign



just after joining the Hiratsuka Works and put up a bag to collect bottle tops in my kitchen at home immediately so as to do my bit to help out with the works' small-scale social contribution activities.

## Social Contribution Activities at Individual Works

## Mie Works Environmentally friendly, well balanced management



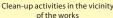
Nobuo Arai Manager, Mie Works

Looking at the scenery along my walk from home to work as it changes through the seasons always reminds me just how blessed Kameyama is in terms of its natural surroundings. Ever since the Mie Works was first established in the city of Kameyama (Mie prefecture) as Furukawa Electric's manufacturing base in western Japan in 1971, we have continued to run operations in a well balanced manner, placing top priority on protecting and contributing to the environment, not least in the form of securing ISO 14001 certification in 1998. We make every effort to make a social contribution too, including engaging in voluntary clean-up activities and raising environmental awareness amongst our employees.

It goes without saying that we have a duty to prevent pollution. We therefore rigorously control air and water

quality on a daily basis and make sure that we take appropriate action in response to the various forms of pollution that continue to be brought to light by advances in science. We aim to actively promote initiatives geared towards preserving the natural beauty of Kamei in our capacity as a company of which the area can be proud.







Drainage tanks

## Osaka Works Safety and peace of mind right from the front gate!



**Tatsuo Yoshisue** Manager, Osaka Works

The only entrance to the Osaka Works accessible to pedestrians and cyclists can use is the main gate. Generally referred to as the West Gate, the main gate faces onto a road and a sidewalk.

As a number of major manufacturers and haulage companies have moved into the nearby area recently, the number of drivers, pedestrians and cyclists passing in front of the West Gate has increased. The fact that both our employee and visitor car parks are located inside the main gate means that there is always a large volume of traffic coming and going through the West Gate. Moreover, drivers' view has always been partially obstructed by fencing when they exit onto the road, forcing them to cut across in front of the West Gate and making it difficult to see approaching cyclists and pedestrians. Eager to take preemptive action to ensure that there are no accidents,

we have therefore made some changes to the fencing in question so as to improve the view of the road. As a result, the West Gate has been transformed and now benefits from full visibility in both directions.

We will continue to strengthen the Osaka Works' reputation for safety and peace of mind, maintaining the utmost respect and consideration for all those who pass our front gate and live in the local area.



## Yokohama Works Promoting activities that enable us to contribute to society



**Hisaharu Yanagawa** Manager, Yokohama Works

In our sixth year since obtaining ISO 14001 certification, this year the Yokohama Works underwent its second renewal inspection.

We continue to promote activities in line with the individual characteristics of the various components that make up the Yokohama Works, namely our research center, affiliated companies and head office.

In terms of our research operations, we strive to develop new products capable of reducing environmental impact and have a hand in new products through indirect support to help minimize risks during the research and development process (harmful chemicals, nanomaterials, etc.), increase yield, save energy and reduce waste. In addition to directly saving energy and reducing waste, we are also continuing to work on

reducing paper consumption on a priority basis at our head office and other administrative divisions.

Our other social contribution activities include the



recycling of plastic bottle tops, which we started last year as part of a campaign to send vaccines to children around the world.

Plastic bottle cap recycling activi-

## Furukawa Electric Group Basic Environmental Policy

## Basic Philosophy

Furukawa Electric Group recognizes that the preservation of the global environment is a critical issue for society and takes the environment into consideration in every aspect of its corporate activities to help create a sustainable, happy and prosperous society.

## Action Guidelines

- We shall maintain a constant awareness of the impact of our corporate activities on the environment, with each and every employee involved in environmental preservation activities.
- In addition to complying with environmental laws and regulations and with requirements from our customers and other sources, we shall also set out voluntary standards to establish greater levels of control.
- We shall set out environmental targets and objectives and systematically carry out activities accordingly to continuously improve our efforts to protect the environment.
- Environmental concerns shall be taken into consideration at every phase of our work, from the R&D and design stages onwards, to supply environmentally friendly products.
- We shall strive to reduce consumption of resources and energy, to promote recycling, to reduce waste and to minimize
  environmental impact at every stage of our activities, from procurement and manufacturing to distribution and customer service.
- We shall conduct environmental audits and review our environmental management system and environmental preservation activities to make continuous improvements.
- We shall raise employee awareness through environmental education.
- We shall promote the disclosure of information and communication with the public and play an active part in community activities.



## **Environmental Management Targets and Performance**

Having devised a set of targets for the four year period from fiscal 2006 to fiscal 2009 in the form of the 2009 Medium-Term Plan for Environmental Preservation Activities, Furukawa Electric continues to promote environmental activities accordingly. We also set out annual Priority Environmental Preservation Activity Targets, based on which we map out objectives, targets and action plans as part of the environmental management systems at each of our bases. On a Group basis, we formulate common activity targets as part of consolidated environmental management, with each individual company setting their own annual targets and carrying out activities accordingly.

## Furukawa Electric Annual Targets and Performance for Fiscal 2007

Activities	Priority Environmental Preservation Activity Targets for Fiscal 2007	Performance in Fiscal 2007	Rating	Priority Environmental Preservation Activity Targets for Fiscal 2008
Waste reduction activities	30% reduction in the volume of outsourced waste disposal compared with fiscal 2004 level	52% reduction	0	60% reduction in the volume of outsourced waste disposal compared with fiscal 2004 level
Zero emission activities	30% reduction in direct landfill disposal compared with fiscal 2004 level	46% reduction	0	64% reduction in direct landfill disposal compared with fiscal 2004 level
Activities to prevent	23% reduction in greenhouse gas emissions compared with fiscal 2000 level	13% reduction	Δ	24% reduction in greenhouse gas emissions compared with fiscal 2000 level
global warming	1% reduction in specific energy consumption for transportation compared with fiscal 2006 level	1.5% reduction	0	2% reduction in specific energy consumption for transportation compared with fiscal 2006 level
Chemical substance management activities	18% reduction in emissions of volatile organic compounds compared with fiscal 2004 level	19% reduction	0	24% reduction in emissions of volatile organic compounds compared with fiscal 2004 level
Green activities	100% procurement rate for general purpose green products	99%	Δ	100% procurement rate for general purpose green products
Green activities	Establishment of the FGMS* at major supply chain operators	System established	0	100% establishment of the FGMS* at major supply chain operators
Eco-design activities	Increase sales percentage of environmentally friendly products amongst new products to 100% Examining environmental performance indices	68%	Δ	1) 100% achievement of sales targets for environmentally friendly new products     2) Compiling product environmental performance index guidelines

As our waste reduction and zero emission activities in fiscal 2007 proved highly effective having substantially exceeded targets, we have revised our medium-term targets for 2009 and reflected revised figures in our annual targets for fiscal 2008.

## Furukawa Electric Consolidated Environmental Management Medium-Term Targets

Activities	Furukawa Electric 2009 Medium-Term Plan for Environmental Preservation Activities	2009 Consolidated Environmental Management Common Activity Targets
Waste reduction activities	75% reduction* in the volume of outsourced waste disposal compared with fiscal 2004 level	50% reduction in the volume of outsourced waste disposal compared with fiscal 2004 level
Zero emission activities	80% reduction* in direct landfill disposal compared with fiscal 2004 level	50% reduction in direct landfill disposal compared with fiscal 2004 level
Activities to prevent global warming	25% reduction in greenhouse gas emissions compared with fiscal 2000 level	10% reduction in greenhouse gas emissions compared with fiscal 2000 level
Chemical substance	30% reduction in emissions of volatile organic compounds	30% reduction in emissions of volatile organic compounds compared with fiscal 2004 level
management activities	compared with fiscal 2004 level	Eliminating the use of chlorinated organic compounds by fiscal 2008
	Expansion of the range of products subject to green procurement (general purpose items) and introduction into Furukawa Electric Group	100% procurement rate for items subject to green procurement (general purpose items)
Green activities	Promotion and improvement of green product management © Establishment of the FGMS at supply chain operators by the end of 2007 for full-scale operation by the end of 2008	Promotion and improvement of green product management  Establishment of the FGMS at supply chain operators by the end of 2007 for full-scale operation by the end of 2008
Eco-design activities	Promotion of improved environmental performance of products  Increased percentage of environmentally friendly products amongst new products  Introduction of environmental performance indices	Promotion of improved environmental performance of products  Increase sales percentage of environmentally friendly products amongst new products to 100%

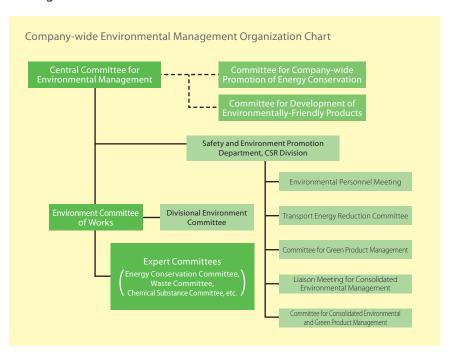
<sup>\*</sup> Revised April 1, 2008 (previously 50%)

Evaluation ratings:  $\odot$  Easily achieved;  $\hookrightarrow$  Achieved;  $\hookrightarrow$  Almost achieved;  $\times$  Unachieved \*The FGMS is a mechanism designed to manage the content of regulated hazardous substances in Furukawa Electric products.

## **Environmental Management System**

## **Environmental Management Promotion Organization**

We at Furukawa Electric promote environmental preservation activities on a companywide basis via our Central Committee for Environmental Management, which is chaired by the Chief Social Responsibility Officer (CSRO). We also promote Group environmental activities in conjunction with our affiliated companies via the Liaison Meeting for Consolidated Environmental Management. All of Furukawa Electric's business bases and consolidated environmental companies have been granted ISO 14001 certification.



## **Environmental Education**

The Furukawa Electric Group runs a variety of educational initiatives designed to raise levels of environmental awareness amongst our employees.

### ISO 14001 Related Education

We organized Four Internal Environ-



Internal Environmental Auditor Training Seminal

mental Auditor Training Seminars led by company instructors, with participants including members of staff from affiliated companies. This year, we trained a total of 61 internal auditors through such seminars. We also organized two internal auditor refresher seminars aimed at our affiliated companies.

## **FGMS Auditor Training Seminar**

In an effort to reinforce knowledge and understanding of business-related environmental risks, we organized our second FGMS Auditor Training Seminar, focusing on controlling the chemical content of our core products as conducted in fiscal 2006. In addition to in-house staff,

we also brought in outside instructors from the Mizuho Information & Research Institute Inc. A total of 39 Furukawa Electric employees and 31 affiliated company employees were trained as FGMS auditors.

## **Environment-Related Education**

As we are working towards the introduction of a set of product environmental performance indices as part of our ecodesign activities, we organized a one-day seminar for group promotion staff, with outside instructors focusing on everything from LCA basics through to the application process and case studies.

## **Environmental Risk Management**

## Soil and Groundwater Pollution Countermeasures

In recognition of the fact that soil and groundwater pollution is an important issue for the health and safety of local residents and employees, the Furukawa Electric Group actively engages in related risk management activities

In addition to taking action promptly as soon as investigations detect soil or groundwater pollution, we make every effort to secure the health and safety of all residents living in the local area. We automatically report the status of any pollution and details of measures to prevent the spread of pollution to the local author-

ities and release relevant information to local residents, related organizations, the media and any other concerned parties as necessary.

In an effort to prevent any negative impact on the local environment as a result of soil or groundwater pollution, we implement a range of pollution risk avoidance initiatives on an ongoing basis, including conducting regular inspections to check for leakages of specific harmful substances, taking steps to prevent leakages and promoting the use of alternative substances.

Having completed a review of records of

specific harmful substances used at our works and affiliated companies and conducted risk assessments to evaluate the risk of soil and groundwater pollution at our works, we proceeded to voluntarily carry out studies into the status of soil pollution in high-risk areas. During fiscal 2007, we extended these same activities to affiliated companies.

We are also carrying out remedial work to get the site of Kyowa Electric Wire's former Osaka Plant removed from the list of designated areas under the Soil Contamination Countermeasures Law.

## **PCB Management**

The quantity of instruments containing PCB is monitored at each of our works so that storage and management operations can be carried out appropriately. In line with the start of processing operations by the likes of the Japan Environmental Safety Corporation, we intend to continue to commission processing on an ongoing basis. As for the PCB-containing instruments having been stored at our affiliated company with its production base

in Kitakyushu-city, we have already completed their processing at the Kitakyushu

Plant of Japan Environmental Safety Corporation.

### Quantity of PCB Stored

Works		In storage	In use	Total
Chiba Works	(Already processed)	88	0	88
CIIIDa WOIKS	(Unprocessed)	11	0	11
Nikko Works		324	30	354
Hiratsuka Works		47	11	58
Mie Works		126	0	126
Osaka Works		66	0	66
Yokohama Works		9	0	9
Total		671	41	712

## Compliance with Environmental Laws and Regulations and Other Compliance Requirements

We check environmental laws and regulations and any other compliance requirements on a regular basis and make every effort to ensure compliance, including patrolling our sites to confirm that measures are being properly implemented.

We monitor the latest information via the Official Gazette and other sources to keep track of revisions to environmental laws and regulations and ensure that we have taken all possible measures.

## Response to Asbestos Issue

### **Use of Asbestos in Products**

Although we do not currently manufacture or import products containing asbestos, we have manufactured and sold such products for industrial use in the past. Relevant products include electric wires for use on ships and fire prevention products for use in construction to install electric wires for telecommunication and electricity. Full details are featured on our website.

## Use of Asbestos in Buildings and Plant Facilities

### (1) Buildings

We discovered asbestos spray materials in company-owned buildings and plants. Although investigations into the extent

of dispersal have confirmed that the asbestos is stable, we decided to remove it anyway to safeguard against the risk of dispersal in the future. Removal work was completed during fiscal 2006.

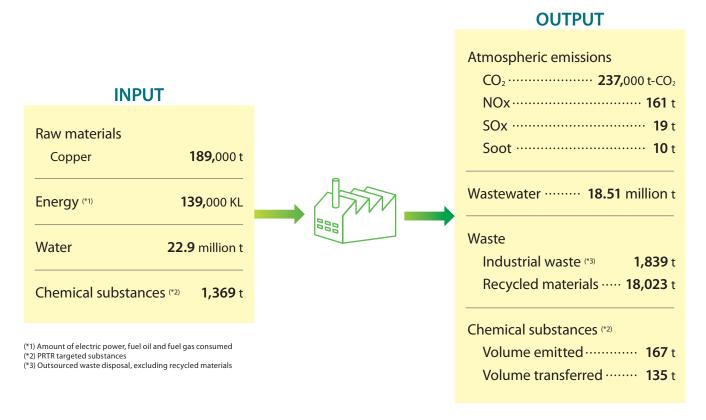
## (2) Facilities and equipment

We have replaced all asbestos having possibilies of dispersal in cases whereby viable alternatives are available. In cases where asbestos is embedded within insulation and other such materials and therefore not dispersed, we plan to replace them with alternative materials that do not contain asbestos at a later date, to coincide with scheduled inspections.

## Business Activities and their Environmental Impact

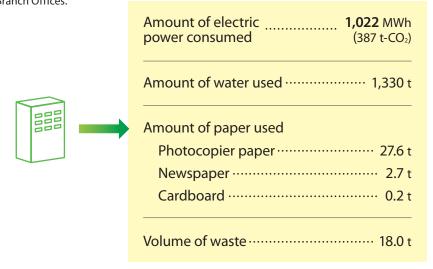
In the process of providing Furukawa Electric products, we purchase a variety of components and raw materials, consume water, electric power and other forms of energy and use chemical substances. We continue to work on reducing the adverse impact that these activities have on the environment.

## **Environmental Impact of our Six Production Base Works**



### Environmental Impact of our Non-production Bases

We have identified the environmental impact of activities at our non-production bases, namely Furukawa Electric's Head Office and three Branch Offices.



We promote power and resource saving measures at our Head Office and Branch Offices, the company's non-production bases.

Examples of such power saving measures include turning off lighting in conference rooms not in use and adjusting air conditioning to appropriate temperatures. In terms of resource saving measures, we promote activities such as sorting waste and reusing resources such as photocopier paper and files.

## **Environmental Accounting**

In an effort to quantitatively assess our environmental costs and benefits, we have compiled tables outlining our "environmental conservation cost," "economic benefit associated with environmental conservation activities" and the "environmental conservation benefit (material benefit)." All data has been compiled in accordance with environmental accounting guidelines pub-

lished by the Ministry of the Environment. Data on affiliated companies was collected for a total of 19 companies.

Furukawa Electric's environmental conservation costs for fiscal 2007 came to 3.8 billion yen in expenses and 500 million yen in investment.

Expenses fell by 1.3 billion yen compared to the previous year (fiscal 2006). Overall

economic benefits rose by 260 million yen, due in part to increased energy costs.

Environmental conservation costs for our affiliated companies came to 4.1 billion yen in expenses and 4.2 billion yen in investment. Overall economic benefits rose by approximately 660 million yen due to increased energy and water costs.

**Environmental Conservation Costs** 

Unit: million yen

Category	Key activity and the outcome	Furukawa	Affiliated companies	
			Year-on-year	Total costs
(1) Business area cost	Pollution prevention (air pollution, etc.), energy conservation, waste disposal, etc.	1,127	-387	2,556
(2) Upstream/downstream cost	Recovery of packaging, drums, etc.	567	-101	274
(3) Administration cost	Environmental management system auditing, environmental impact monitoring, etc.	472	44	212
(4) Research and development cost	Development of environmentally friendly products, research into alternatives for harmful substances	1,091	-93	816
(5) Social activity cost	Tree planting, local community cleaning activities, donations, etc.	3	-1	4
(6) Environmental remediation cost	Environmental impact assessments, cleanup of polluted soil, etc.	514	-746	195
Total		3,773	-1,285	4,057

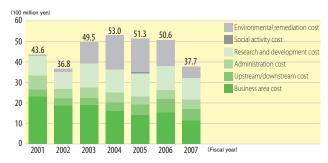
Year-on-year figures have not been calculated for affiliated companies due to differences in the companies covered compared to last year.

**Environmental Conservation Benefit** 

Emissions causing	Unit	Furukawa Electric	Affiliated companies
environmental impact	Ome	Reduction	Reduction
Volume of industrial waste disposal processed*	t	-287	593
Energy consumption (crude oil equivalent)	1,000 kl	-6,988	-12
Water consumption	1,000 t	-4,765	-234
Emissions of volatile organic chemical compounds	t	0	-3
CO <sub>2</sub> emissions	1,000 t - CO <sub>2</sub>	-9,000	12
SOx emissions	t	1	342
NOx emissions	t	-24	45
Soot emissions	t	2	15

<sup>\*</sup>Minus figures indicate an increase \*Excluding recycled waste

**Environmental Conservation Costs** 



 $\begin{tabular}{ll} Economic Benefit Associated with Environmental Conservation Activities & {\bf Unit: million yen} \\ \end{tabular}$ 

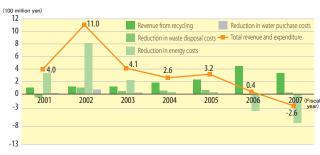
Details of benefits	Furukawa Electric	Affiliated companies
	Total benefit	Total benefit
Revenue from recycling	496	912
Reduction in waste disposal costs	-40	142
Reduction in energy costs	-712	-1,183
Reduction in water purchase costs	-3	-535
Total	-260	-663

<sup>\*</sup>Minus figures indicate an increase

Investment and Research Costs

investinent and nesearch costs		Unit: million yen
Investment and research costs	Furukawa Electric	Affiliated companies
	Total costs	Total costs
Environment-related investment	546	4,157
Total investment	12,909	24,077
Total research costs	10,682	5,855

### Economic Benefit



## **Producing Environmentally Friendly Products**

In order to produce environmentally friendly products, we at Furukawa Electric undertake measures such as purchasing items via green procurement, green product management and environmentally friendly product development.

## Green Product Activities

## **Green Product Management Activities**

In an effort to reinforce the overall management structure of the Furukawa Electric Group, in fiscal 2007 we set up the Committee for Consolidated Environmental and Green Product Management, incorporating affiliated companies. The committee will meet every six months, in April and October, and will share information and implement groupwide activities. In response to customer audits, we have carried out voluntary inspections by affiliated Group companies and audits by Furukawa Electric and have expanded such activities to our major suppliers as well. We will

continue to step up activities in the future in order to secure our customers' trust. As part of our automotive parts operations, we are extending the establishment of environmentally hazardous substance management systems to overseas affiliated companies and intend to oversee operations via voluntary inspections and audits, as is the case with our domestic suppliers.

On other fronts, we have carried out studies into compliance with European Registration, Evaluation and Authorization of Chemicals (REACH\*) regulations in each of our divisions and at each of our Group companies with an eye to commencing preliminary REACH registration. We will also be requiring our suppliers to undertake preliminary registration in relation to a number of products.

We joined the Japan Article Management Promotion (JAMP\*) Consortium meanwhile at the end of 2006 and have started to use the mechanisms and tools provided.

## Green Product Initiatives at our Telecommunications Company

With its wide range of products, including optical fibers, optical and communication cables, optical connectors, wiring for electric and electronic equipment, optical components, optical fiber amplifiers, laser modules, optical system products, network equipment and fusion splicers, our telecommunications company ships products to destinations the world over.

We are working towards the establishment of a management structure for chemical substances contained in our products based on the following perspectives, especially in the field of photonics and network technology, which includes optical components, optical fiber amplifiers, network equipment and fusion splicers.

- 1 We have established a set of green product management regulations in each of our divisions. In addition to the management of substances on a design value or single material basis, we are also pushing ahead with activities geared towards the management of product-related substances at the processing stages.
- 2 Based on future REACH regulations and in response to customer inquiries regarding the six substances listed

under the RoHS Directive, JGPSSI substances, other chemical substances contained in our products in relation to optional lists of substances designated by customers, we are continuing to work on mechanisms to retrieve data faster and with a greater degree of

3 Having installed x-ray fluorescence spectrometers, we are using them to carry out regular analysis of externally purchased items and analysis in line with the level of importance of the supplier or producing country and to further reduce risks through measures such as reinforcing cooperation along the supply chain.

We are also working on the development and launch of the following new products in an effort to help protect the environment in the field of photonics and network technology.

## 1 Reduced energy consumption products Fiber lasers

We have developed commercial fiber lasers as a replacement for solid-state (YAG) lasers for uses such as metal processing and analysis. Fiber lasers offer excellent energy conversion efficiency and enable energy consumption

to be reduced by half compared to conventional solidstate lasers.

### A-AWG

We have developed commercial athermal AWG (arrayed

waveguide grating) that makes it possible to run AWG wavelength



multiplexer/demultiplexers without the need for temperature control or a power supply.

## 2 Resource-saving products

## **Fusion splicers**

We have developed the S122 series of commercial ultra-compact fusion

splicers that enable a substantial saving in resources by reducing the amount of raw materials



needed for conventional models by 75% in volume and 70% in weight.

## **Producing Environmentally Friendly Products**

## **Eco-Design Activities**

## **Environmentally Friendly Products**

At Furukawa Electric, we use the term "environmentally friendly products" to refer to products that are harmless at every stage of the process from purchasing, production and distribution through

to usage and disposal and that have a minimal impact on the environment. We even have our own unique environmental labeling system for such products. Our environmentally friendly product percentage, namely the percentage of total sales of new product accounted for by environmentally friendly products, came to 68% in fiscal 2007.

## **Environmentally Friendly Product Development**

April 1, 2008 marked the beginning of the commitment period under the Kyoto Protocol. If we are going to put an end to global warming, we need to take action right away to limit and reduce greenhouse gas emissions.

Although Furukawa Electric has long since been developing environmentally friendly products, we intend to make reducing greenhouse gas emissions our top priority across the board from now on, covering every stage of the process from purchasing, production and distribution through to usage and disposal.

In order to strengthen our framework for the development of environmentally friendly products, we have restructured the activities of our in-house Committee for Development of Environmentally-Friendly Products on a groupwide basis by extending membership from R&D and business divisions at Furukawa Electric to also include affiliated companies.

The committee's activities will revolve primarily around the following goals.

• Establishing quantitative environmental performance indices for environ-

mentally friendly products based on ICA

- Clearly setting out criteria for Eco-Link accreditation
- Ensuring that customers can choose our environmentally friendly products with confidence

We will continue to promote the development of environmentally friendly products throughout the Furukawa Electric Group in the future, based around the committee's activities.

## Views from development staff



Working towards the practical application of optimum power cables for the future of the planet

### Masashi Yaqi

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

Thanks to the absence of resistance and their high current density, superconductors are an exceptionally effective form of technology when it comes to saving energy and high-efficiency energy conversion. As superconducting wire made from thin films such as the YBCO system retains its superconductivity even in a strong magnetic field, there are high hopes for applications in a range of electrical equipment. Through the continued development of YBCO superconducting wire-based power cables with unrivalled potential for application in electrical equipment, our group has managed to achieve outstanding levels of performance (low loss).

Merely improving performance however is not enough to enable cables to be installed in infrastructure equipment, which requires high levels of reliability. Challenges such as fault-resistance and long-term reliability all need to be tackled one at a time. We have recently made a 10m superconducting cable and an intermediate connector and confirmed exceptionally low levels of loss (loss of 1W or less at 1000A, 10m AC transmission). Furthermore, tests using a fault current more than 30 times in excess of this capacity showed no deterioration, confirming sufficient performance in terms of fault-resistance.

Although it will still take a little time before we reach the practical application stage, we are making every effort to increase reliability, reduce costs and maximize benefits in an effort to combat global warming.

YBCO (yttrium-based) superconducting wire YBCO superconducting wire is formed as a film by synthesizing a layer of crystalline superconducting oxide material several microns thick from chemicals including yttrium, barium and copper on a tape-shaped metallic substrate with an interlayer formed via the IBAD (ion beam assisted deposition) method. It offers the most outstanding performance as a superconducting wire, with properties including a current density 10-100 times higher than conventional bismuth system superconducting wire, no

degradation in performance in a magnetic field, minimal AC loss and compatibility with liquid nitrogen.



Multilayer YBCO superconducting wire (conductor): Low loss and high capacity

Electrical insulation layer
YBCO superconducting
wire (shield):
Zero magnetic field leakage
= no inductive interference

iquid nitrogen

High-temperature superconducting cable
The structure of high-temperature superconducting cables
consists of several high-temperature superconducting wires
coiled in a spiral around a core referred to as the "former".
On top of this is an electrical insulation layer, a supercon-

ducting shield layer and a protective layer formed around the core of the cable, which is then encased inside heat-insulated tubing.



10m YBCO hightemperature superconducting cable

Intermediate connector minimal contact resistance of 5.2nΩ

## THERMO-IN BIRUMEITO Tube outdoor refrigerant sheath piping (patent pending) launched

Furukawa Electric completed development and launched its new THERMO-IN BIRUMEITO Tube outdoor refrigerant sheath piping (patent pending) for use in building multi-air conditioning systems in April 2007. This is an industry-first product in that it uses high expansion foam integrated molding technology to enable outstanding weather resistance and high-strength coating, thereby rendering ducts and other protective covers unnecessary.

By increasing the expansion ratio from the usual ×5 to ×13, we have managed to produce a coating that is both weather resistant and strong. As this product eliminates the need to use ducts or other types of protective covers, it makes it possible to halve installation times and

reduce material costs by 10-20%. It is a brand new product unique to Furukawa Electric, combining our technical capabilities in the fields of copper piping and resin.

### **Benefits:**

Weather resistance:

Offers outstanding weather resistance thanks to the use of a special polyolefin resin composite on the surface layer Strength:

The surface layer is strong enough to withstand bird damage and dragging during pipe installation

Heat resistance:

Offers excellent heat-resistant performance thanks to the use of polypropylene

foam in the heat insulation layer Pollution-free:

Environmentally friendly piping thanks to the use of non-halogen material in both the surface and heat insulation layers

Size:

Available in the same sizes as conventional products, with outer diameters of 6.35-44.45mm





THERMO-IN BIRUMEITO Tube®

Example of outdoor piping

## Environmentally friendly foam fire extinguishing agents

The Japanese have always tended to use nothing but water to put out building fires. Changes in firefighting tactics in recent years however have prompted efficiency drives and efforts to extinguish fires using less water and in a shorter space of time. Furukawa Electric and Furukawa Techno Material for instance have been investigating firefighting tactics combining foam fire extinguishing agents with surfactant agents in conjunction with Kitakyushu City Fire Department and have developed an environmentally friendly foam extinguishing agent as part of a joint industry, academic and government venture with the University of Kitakyushu and Shabondama Soap.

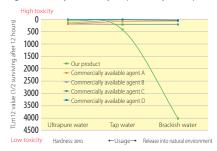
Using foam extinguishing agent

Combustible material

Foam sticks to and penetrates into the material

In addition to reducing the surface tension of water for firefighting to enable it to better penetrate wood and other combustible materials, the product also has a cooling and suffocating effect as the foam sticks to materials. In an experiment conducted by the Kitakyushu City Fire Department, the foam-based agent was able to extinguish a fire in the equivalent of a housing complex with a floor area of 27m2 using less than half the volume of water and in less than half the time that it took using water alone. This would not only reduce fire damage and save firefighters effort, but it would also make it possible to minimize water damage to lower floors and protect the environment from noxious fumes and contaminated

Figure 1: Toxicity in fish (subject species: Oryzias latipes)



water. What is more, whereas the main constituent of existing foam-based extinguishing agents is synthetic surfactant, this product uses soap-based surfactant that has a quicker rate of decomposition. Tests on the envisioned impact on aquatic life if it were to be washed into a river in particular found that levels of toxicity were massively reduced (Figure 1).

This product and the accompanying firefighting tactics are already being fully deployed in Kitakyushu-city and are starting to be brought into use in other areas as well. It is hoped that it will also be usable on forest fires, which pose major problems in terms of generating CO<sub>2</sub>, as well as building fires in the future.

## Recyclable optical fiber cable joint boxes (developed jointly with Tokyo Electric Power Company)

With the development of the Aerial Optical Eco Closure ("Eco Closure") junction box for connecting and splitting optical fiber optic cables, we have managed to both reduce environmental impact and cut costs by improving workability.

### **Benefits:**

- Minimizes consumption of resources (optimized structure)
   Adjustable structure that can expand (or contract) to suit the size of the connection capacity
- Reduces waste (reusable structure)
   Structure can be expanded (or contracted) simply by adding or removing parts
- Makes effective use of resources (recyclable structure)
   Compound of off-cuts from slotted opti-

cal fiber cables (sheathing material, slot material)

Compound of general recycled materials

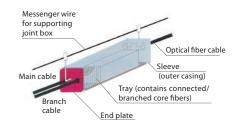
•Stable operation of core fibers Storage tray structure, mechanism and wiring designed to minimize impact on transmission properties of core fiber

### **Expected results**

- Minimizes consumption of resources and reduces waste
   No need to replace 1,200 joint boxes each year, making for a reduction in waste of approximately 3.4 tons
- Makes effective use of resources Makes effective use of composite containing approximately 15-20% selected waste materials (sheathing from removed optical fiber cables, etc.) and

general recycled materials, enabling a saving of roughly 7.8 tons of plastic each year

Eco Closure (artists impression)



## Green Procurement

## Office Supplies and Other General Purpose Items

We promote the green procurement of office supplies and other general purpose items. This chiefly involves certifying green products as eco-items and registering them in a catalog on our purchasing system. In the case of certain general purpose items in particular, we exclusively purchase eco-items registered in our catalog. We have continued to step up green procurement however by increasing the number of eligible items. As a result,

we achieved a green purchasing rate of approximately 99% for applicable items as of the end of 2007 (products no longer classed as green items due to issues with recycled paper part way through the year excluded from total). We are working towards green procurement for all office supplies and also intend to expand similar activities to include affiliated companies.

## **Products and Manufacturing Process Components**

We have added a mechanism to our purchasing system to enable each of our suppliers to provide the latest information with regard to the status of their environmental management activities (including ISO 14000) and systems for controlling the chemical content of the materials they supply. Getting individual suppliers to provide the latest informa-

tion in this manner enables us to assess the current situation and share information. We will continue to ask our suppliers to provide this information in an effort to monitor status on an ongoing basis.

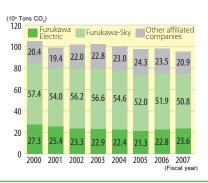


## **Efforts to Prevent Global Warming**

The majority of the Furukawa Electric Group's greenhouse gas emissions consist of CO2 generated from electricity, fuel and other energy sources. As emissions from manufacturing processes in particular account for a large proportion, we continue to work on reducing emissions through energy saving measures such as increasing the efficiency of production processes, switching fuels, replacing equipment with more efficient alternatives, meticulously turning off lights when not in use and insulating hot areas. Our efforts to prevent global warming have always been linked to our energy saving initiatives and we have continued to implement measures in our offices as well, including turning off unnecessary lighting and setting air conditioning to the optimum temperature. Nonetheless, as the first commitment period under the Kyoto Protocol began in April 2008, we intend to step up our activities even further in the future, including participating in Team Minus 6%.

Total greenhouse gas emissions for the Group as a whole came to 950,000 tons of CO<sub>2</sub> in fiscal 2007, a reduction of 9% compared to levels in fiscal 2000. Furukawa Electric achieved an equivalent reduction of 14% and our affiliated companies a reduction of 8% (both compared to fiscal 2000 levels).

Greenhouse Gas Emissions 2000-2007



## Participating in Team Minus 6%

Furukawa Electric signed up to Team Minus 6% in April 2008, underlining our commitment to actively push ahead with CO<sub>2</sub> reduction initiatives at our head office, branches and other offices in addition to our current activities, which are focused primarily on our works and plants. Going one step further, we have also launched a series of Eco Home activi-

ties, as part of which we are actively aiming to reduce CO<sub>2</sub> on an individual basis, at home as well as at work. We have distributed leaflets to all of our employees in an effort to raise awareness regarding global warming and are making steady progress in terms of reducing our CO<sub>2</sub> emissions. http://www.team-6.jp/english/about.html/



An Eco Home leaflet

## Switching Fuel

Following on from our Hiratsuka Works, we are now in the process of switching fuels from LPG gas to city gas at our Chiba Works as well. We will have melting furnaces fully up and running from May 2008 and expect to achieve an annual reduction in  $CO_2$  of 2,300 tons.



Installation of city gas pipes

## **Energy-Saving Tours**

In conjunction with Fuji Electric, in December 2007 we organized an energy saving tour of the plants at our Hiratsuka Works with the aim of compiling an energy-saving diagnosis. The numerous proposals put forward as a result were screened for cost effectiveness by our Energy Conservation Committee and the decision taken to introduce new measures in a total of seven areas, including steps to install inverters and pressure control devices on plant water pumps. Some of these measures have already been implemented, with the others to be implemented on an ongoing basis. We plan to conduct energy-saving tours on a regular basis from now on in an effort to enhance energy-saving activities and raise awareness amongst employees, especially with regard to cutting CO<sub>2</sub> emissions.



Energy-Saving Tour

## **Efforts to Prevent Global Warming**

## Mini Energy Saving Exhibition

In March 2008 we organized a mini energy saving exhibition at our Chiba Works in conjunction with energy saving device manufacturers. Despite being the first time that we have attempted anything like this, the event turned out to be a great success thanks to participation from large numbers of affiliated companies and each of Furukawa Electric's works.



The mini energy saving exhibition

## **Promote Eco Commuting**

The second and fourth Wednesdays of June were set aside as eco commuting promotion days at our Mie Works. As part of this initiative, employees who normally commute by car were encouraged to either (1) travel to work by minibus or (2) come to work on foot or by bicycle. Over the course of June, which was environmental month, 45 employees opted for (1) and 89 for (2), resulting in a reduction of approximately 170kg in CO<sub>2</sub> emissions.



Eco commutina

## Installation of Wind and Solar Powered Street Lighting

We have installed wind and solar powered street lighting alongside the main entrance to our Mie Works. In addition to providing light and electricity for the works' gatehouse, this will also help symbolize the works' environmentally friendly credentials.



Wind and solar powered lighting

### Logistics-Related Initiatives

At 148 million ton-kilometers, Furukawa Electric's total transportation volume for fiscal 2007 came in at more or less the same level as fiscal 2006. Nevertheless, through measures such as an increase in modal shift, we managed to reduce CO<sub>2</sub> emissions to 18,800 tons, a reduction of 1.5% compared to the previous year. We also achieved a similar 1.5% reduction in specific consumption (denominator: ton-kilometers). The total transportation volume for the Furukawa Electric Group as a whole came to 517 million ton kilometers, an increase of 2.6% compared to fiscal 2007. We intend to work together with Furukawa Logistics to

continue to promote modal shift, increase loading rates and promote joint deliveries in an effort to reduce transportation energy consumption.

## Modal Shift and Specific Consumption





JR Freight containers (en route from Nikko to Utsunomiya)

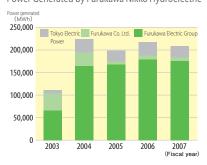
## Harnessing Hydroelectric Power

Furukawa Nikko Hydroelectric was transferred from Furukawa Co. Ltd. and became an affiliated company in September 2003. Using the Kegon Waterfall, which flows from the natural dam created by Chuzenji Lake, and surrounding mountain streams as a water source, the company generates electricity via four greenhouse gas-free hydroelectric power facilities and supplies power to Furukawa Electric Group sites including our Nikko Works and Furukawa Sky's Nikko Plant, Tokyo Electric Power and

Furukawa Co. Ltd.

In terms of performance, the company supplied the Furukawa Electric Group with approximately 176,000MWh of power in fiscal 2007. If this were to cover all of our purchased power, it would translate into a reduction in CO<sub>2</sub> of around 75,000 tons. Approximately 26% of the total power consumed by Furukawa Electric on a standalone basis is provided by hydroelectric power from Furukawa Nikko Hydroelectric.

Power Generated by Furukawa Nikko Hydroelectric



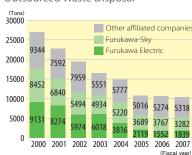
\* Data for 2003 is the result after transfer (September 2003 – March 2004)

## **7ero Emission Activities**

The Furukawa Electric Group has been involved in efforts to reduce levels of outsourced waste disposal ever since 1993. The overall level of outsourced waste disposal for the Group as a whole in fiscal 2007 fell by 30% compared with fiscal 2004 to 10,440 tons. Furukawa Electric achieved an equivalent reduction of 52% on a standalone basis and our affiliated companies a reduction of 22% (both compared with fiscal 2004 levels). The overall level of direct landfill disposal for the Group as a whole also fell by

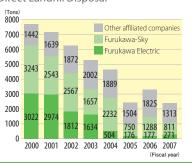
48% compared with fiscal 2004 to 2,395 tons. Furukawa Electric achieved an equivalent reduction of 46% on

Outsourced Waste Disposal



a standalone basis and our affiliated companies a reduction of 48% (both compared with fiscal 2004 levels).

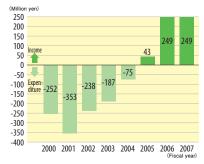
Direct Landfill Disposal



## **Reducing Waste Disposal Costs**

We at Furukawa Electric are also working towards targets for the reduction of waste disposal costs. Spending on landfill and intermediate disposal in fiscal 2001 totaled more than 300 million yen. In addition to reducing levels of waste through initiatives such as promoting reuse and eliminating waste along our production lines, we have continued to implement measures such as carefully sorting waste to generate value since then, making it possible to sell our waste products for profit. In addition to the effects of activities such as these, soaring copper prices also helped us to achieve a profit of approximately 250 million, around the same level as fiscal 2007.

Waste Disposal Costs



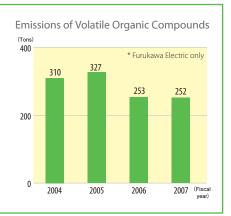
## Introduction of an Electronic Manifest

As part of our efforts to introduce an electronic manifest at Furukawa Electric, we commenced operations at our Hiratsuka and Mie Works in April 2008. The system is also in place at our Chiba Works and is on the verge of commencing operations there too. The rate of usage of the electronic manifest as of April 2008 stood at 45% (total manifest transactions: 349, electronic manifest transactions: 158). We intend to focus on expanding usage at all of our works in the future.

## **Chemical Substance Management**

The Furukawa Electric Group promotes efforts to reduce the use of harmful chemical substances. In particular, we make every effort to actively reduce emissions of volatile organic compounds, which are regarded as

one of the causes of photochemical smog. Furukawa Electric's emissions have fallen 19% compared with levels in fiscal 2004, with organic chlorine compounds now only used by five of our affiliated companies.



## **Appropriate Management of Chemical Substances**

We check the properties of and laws and regulations applicable to all chemical substances that we use as part of the manufacturing process against Material Safety Data Sheets (MSDS) and manage substances accordingly. We also monitor the volumes of each substance used and report the relevant details in accordance with the PRTR Law\*.

Volume of PRTR Substances Released and Transferred

(Unit: Ton)

Substance No.	Name of substance	Volume handled	Volume released	Volume transferred	Volume neutralized
25	Antimony and its compounds	76.2	0.1	5.6	0.0
40	Ethylbenzene	7.1	0.0	0.0	7.0
63	Xylene	21.5	8.5	1.8	11.1
64	Silver and its water-soluble compounds	3.0	0.0	0.0	0.0
67	Cresol	292.6	0.5	0.1	291.5
108	Inorganic cyanide compounds	6.7	0.0	0.0	0.0
172	N, N-dimethylformamide	74.0	0.0	0.0	73.3
197	Decabromodiphenyl ether	227.2	0.0	16.4	0.0
207	Copper salts (water-soluble)	13.7	0.0	0.0	0.0
227	Toluene	395.1	157.3	107.5	116.5
230	Lead and its compounds	2.0	0.0	0.0	0.0
231	Nickel	27.8	0.0	0.0	0.0
232	Nickel compounds	7.2	0.0	0.0	0.0
253	Hydrazine	8.8	0.0	0.0	8.8
266	Phenol	201.0	0.0	0.1	200.5
272	Bis (2-ethylhexyl) phthalate	1.8	0.3	0.1	0.0
283	Hydrogen fluoride and its water-soluble salts	3.7	0.0	3.0	0.0
		1369.4	166.8	134.7	

<sup>\*</sup> Applicable to substances that are handled in volumes of one ton or more at works (or 0.5 tons or more in the case of specific first category chemical substances)

## Reducing Emissions of Volatile Organic Compounds

Although Furukawa Electric does not currently own any facilities that fall under regulations set out in accordance with the Air Pollution Control Law, we are nonetheless voluntarily working to reduce emissions of volatile organic compounds (VOC). The main types of VOC that we

handle are toluene and isopropyl alcohol (IPA). We are working on reducing the volume of toluene that we use, mainly to degrease copper strips, by switching to a hydrocarbon-based detergent instead. We are also looking to lowering consumption of IPA, which is used to reduce cop-

per wire when it comes out of the melting furnaces, through measures to prevent leaks and dispersal. We are examining the possibility of installing IPA recovery apparatus in an effort to achieve further reductions.

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

## **Environmental Preservation Data**

## Chiba Works

## Atmospheric Indicators

ltem	Unit	Facilities	Legal standard	Self-imposed standard	Average	Maximum
NOx	(ppm)	Melting furnace	180	180	16	22
Soot	(g/Nm³)	Melting furnace	0.1	0.1	0.011	0.011

## Wastewater Quality Indicators

ltem	Unit	Legal standard	Self-imposed standard		Maximum
рН		5.0 to 9.0	5.5 to 8.5	8.1	8.4
COD	(mg/l)	15	10	3.2	10.2
SS	(mg/l)	20	10	2.9	6.5
n-h (mineral oil)	(mg/l)	2	1	0.2	0.3

## Nikko Works

## Atmospheric Indicators

	Unit	Facilities	Legal standard	Self-imposed standard		Maximum		
		Boiler	180	180	108	120		
NOx	(ppm)	Melting furnace	200	200	57	60		
		Dryer furnace	300	250	53	58		
				Boiler	17.5	17.5	0.35	0.39
SOx	(K value)	Melting furnace	17.5	17.5	0.24	0.26		
		Dryer furnace	17.5	17.5	0.13	0.13		
		Boiler	0.3	0.3	0.00	0.00		
Soot	(g/Nm³)	Melting furnace	0.2	0.2	0.00	0.00		
		Dryer furnace	0.5	0.2	0.00	0.00		

## Wastewater Quality Indicators

ltem	Unit	Legal standard	Self-imposed standard	Average	Maximum
рН		5.8 to 8.6	6.0 to 8.5	7.2	7.6
BOD	(mg/l)	25	16	2.7	5.0
SS	(mg/l)	50	20	1.0	1.0
n-h (mineral oil)	(mg/l)	5	0.5	0.2	0.2

## Mie Works

## Atmospheric Indicators

ltem	Unit	Facilities	Legal standard	Self-imposed standard		Maximum
		Boiler	180	140	47	54
NOx	(ppm)	Melting furnace	180	140	48	53
		Boiler	0.6	0.5	0.00	0.00
SOx	SOx (K value)	Melting furnace	41.6	33.3	0.13	0.13
		Boiler	0.3	0.24	0.005	0.005
Soot (g	(g/Nm³)	Melting furnace	0.3	0.24	0.072	0.084

## Wastewater Quality Indicators

ltem	Unit	Legal standard	Self-imposed standard	Average	Maximum
рН		5.8 to 8.6	6.5 to 8.5	7.6	8.0
BOD	(mg/l)	10	4	1.3	2.0
SS	(mg/l)	25	6	1.0	5.1
n-h (mineral oil)	(mg/l)	1	0.7	0.11	0.45

## Osaka Works

## Atmospheric Indicators

ltem	Unit	Facilities	Legal standard	Self-imposed standard	Average	Maximum
		Boiler	150	120	18.0	18.0
NOx	(ppm)	Melting furnace	200	160	5.0	6.0
		Dryer furnace	170	144	3.0	3.0
		Boiler	0.1	0.08	0.001	0.001
Soot (g/Nm³)	(g/Nm³)	Melting furnace	0.2	0.16	0.001	0.001
		Dryer furnace	0.25	0.2	0.001	0.001

## Wastewater Quality Indicators

	Unit	Legal standard	Self-imposed standard		Maximum
рН		5.7 to 8.7	5.7 to 8.7	7.7	8.2
BOD	(mg/l)	300	10	4.9	11.0
SS	(mg/l)	300	50	10.6	47.0
n-h (mineral oil)	(mg/l)	5	2	1.4	2.9

## **Initiatives at Affiliated Companies**

## Inoue Manufacturing Co. Ltd.



Head Office:2-2-13 Okano, Nishi-ku, Yokohama, Kanagawa prefectureYokohama Plant:2-10-10 Okano, Nishi-ku, Yokohama, Kanagawa prefecture

Ebina Plant: 2286-1 Sugikubo, Ebina, Kanagawa prefecture

Workforce: 260 employees

Website: http://www.inoue-mfg.com/

Inquiries: Quality and Environmental Promotion Department

Tel: +81-46-238-1055 Fax: +81-46-238-4727

### History

Established as Inoue Iron Works in 1919, the current incarnation of Inoue Manufacturing came into being after the company was restructured in 1957. With capital investment from Furukawa Electric, we became a member of the Furukawa Electric Group that same year and have been ever since

We deal in a range of products, including accessories for power cables, components for electrical equipment, spot welding guns and their components, and other processed nonferrous metal products.

## **Environmental Preservation Initiatives**

In March 2002, our Ebina Plant, Yokohama Plant and Tokyo Branch combined to obtain ISO 14001 certification. In an effort to reduce the environmental impact of our business activities, we continue to promote the following environmental preservation initiatives on a priority basis in the fields of product development, design, manufacturing and sales.

- (1) Energy saving initiatives to help prevent global warming
- (2) Waste reduction and recycling initiatives to ensure the effective use of resources and reduce environmental impact
- (3) Development of technology and products to help minimize environmental impact
- (4) Rigorous control of chemical substances

We have set out the following environmental targets for fiscal 2008 and are implementing activities accordingly.

- (1) 5% year on year reduction in power consumption
- (2) 5% year on year reduction in volume of waste generated
- (3) 100% response rate to customer requirements regarding the exclusion of harmful chemical substances

## (4) Establishment of green procurement management

As part of our development efforts to help minimize environmental impact, we have developed technology and products including halogen-free termination connectors for power cables (so as to prevent harmful gases from being emitted during combustion), lightweight guns for spot welding robots (so as to reduce the amount of materials used and make robots more compact) and electronic beam welding achieving almost the same electric resistance as base material.

On the waste front, we are making every effort to reduce the volume of waste that we generate through initiatives such as reusing packaging boxes. All waste leaving our plants is sent to a subcontractor for intermediate disposal, with the majority then being recycled.

In an effort to raise awareness, we have handed out cards bearing our Basic Environmental Philosophy and Environmental Policy to all of our employees and require them to be carried at all times in our plants. We are also working to raise environmental awareness on an individual level through initiatives such as requiring vehicles to turn off their engines whilst on site and meticulously separating waste for recycling.

In terms of chemical substances, we are now able to manufacture selected products made from materials that do not contain any harmful substances, including lead-free solder and cadmium-free silver brazing filler.

We will continue to make every effort to implement companywide activities aimed at







6600V termination (eco termination)

reducing environmental impact in the future.

### **Social Contribution Activities**

## (1) Work experience for junior high school students

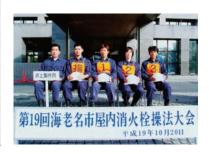
Having received a request from the Nishiku Ward Office (Yokohama) to provide work experience placements, in May 2008 we organized a two-day work experience program for two local junior high school students. The program started with safety education and also included tours of our plants before concluding with practical sessions in which the students manufactured their own pencil holders.



A practical work experience session

### (2) External awards

Our Ebina Plant has its own firefighting team that is responsible for maintaining and operating fire hydrants and conducting regular fire drills. In October 2007, the team was presented with an award for outstanding achievement at the 19th Ebina Indoor Fire Hydrant Contest, an event organized by the Ebina Fire Department.



### Okumura Metals Co. Ltd.



Head Office: 2-6-5 Sakuragawa, Naniwa-ku, Osaka Ritto Works: 575 Deba, Ritto, Shiga prefecture Nikko Works

597 Otorozawa, Nikko, Tochigi prefecture

Okayama Works: 1226-2 Hattori, Osafune-cho, Setouchi, Okayama prefecture Kasuga Plant: 2352-1 Nokono, Kasuga-cho, Tamba, Hyogo prefecture

Workforce: 146 employees

Website: http://www.fitec.co.jp/okumura/

Inquiries: EMS Promotion Department, Head Office

Fax: +81-6-6562-7258 Tel: +81-6-6562-7251

### **History**

Established in 1926, Okumura Metals adopted its current name in 1970. Having entered the processing sector via the sale of materials such as copper and aluminum, we currently process components for home appliances, including manufacturing internal piping for air conditioners, piping connection kits and microwave oven components.

In addition to five domestic works and plants, we started to branch out overseas in 1987 and currently operate a global network consisting of four overseas bases (in Malaysia, Guangzhou, Shanghai and Thailand), as we continue to supply products that guarantee customer satisfaction on a daily basis.

### **Environmental Preservation** Initiatives

We first began ISO 14001 certification activities in March 1999, going on to achieve certification for our three works and plants in the Kinki region in February 2000. In February 2005, we added a further two sites, securing certification for all of our domestic premises. Having gone on to obtain certification at each of our four overseas bases in December 2006, our environmental preservation activities now cover all bases associated with the company.

### **Priority Measures**

### (1) Waste reduction activities

In fiscal 2007, we managed to reduce the volume of waste generated by 45% compared to levels in fiscal 2000 through measures such as promoting recycling based on separating, collecting and returning raw material packaging.

### (2) Reducing power consumption

In fiscal 2007 we achieved a 19% reduction in power consumption compared to levels in fiscal 2000 through measures such as upgrading plant facilities in line with energy saving specifications, including equipment such as compressors and air conditioners

### (3) Reducing use of chlorine-based organic solvents

In fiscal 2007, we achieved an 82% reduction in the volume of organic solvents used to clean our products and components compared to levels in fiscal 2000 through measures such as continuing the installation of hydrocarbon-based washing machinery (started in fiscal 2002) and using alternatives to solvent-based cleaning fluids.

### (4) Green activities

In an effort to take quick, effective action in response to new restrictions on the use of harmful chemical substances, including RoHS regulations, in fiscal 2007 we put in place an environmental quality assurance system to enable us to deal with customer inquiries as quickly as possible.

We have also installed simplified analysis equipment and established a checking system as part of our day to day management operations.

## (5) Community and social contribution

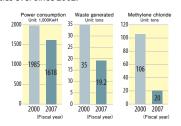
We take part in events and other activities held in the local communities around each of our sites.

At our Head Office, in addition to engaging in weekly cleanup activities conducted once a week, we have participated in Clean Osaka (held in November each year and

also in August 2007 to coincide with the World Athletics Championships) and local cleanup activities ever since 2002.



Cleanpic Osaka



### **Future Activities**

### (1) Eliminating the use of chlorine-based organic solvents

We scrapped one of our three dichloromethane washing machines at the end of March 2008 and replaced it with a hydrocarbon-based alternative. We plan to scrap and replace a further machine before the end of fiscal 2008 and have also penciled in the removal of the remaining machine so as to complete the process.

### (2) Increasing sales of environmentally friendly products

In our capacity as a supplier of environmentally friendly products, which the home appliance industry has been actively promoting, capitalizing on the fact that 70% of the products we sell are materials or components for white goods, we are actively

focusing on increasing sales



Eco Cute piping

of materials and components for environmentally friendly products and making every effort to sell body components and materials for Eco Cute water heaters in particular, which are attracting a great deal of attention within the industry at present. We intend to continue to increase sales in the future.

### (3) Green activities

We are redoubling our focus on green activities at present, incorporating our suppliers as well in an effort to firmly establish our environmental quality assurance system.

### (4) Zero emissions activities

We are working to achieve zero emissions, with overall waste totaling less than 1%, through efforts to reduce the volume of waste generated, primarily through the 3Rs, and to cut the volume of direct landfill disposal based on initiatives such as disassembly and separating waste.

## **Third-Party Opinion**



Mariko Kawaguchi Senior analyst at the Management Strategy Research Department of Daiwa Institute of Research Ltd.

Graduated with a master's degree from Hitotsubashi University Graduate School in 1986. Joined Daiwa Securities in 1986. Transferred to Daiwa Institute of Research in 1994. Had a number of roles, including analyst, taking her present assignment. Her research subjects include socially responsible investment and corporate social responsibility. Co-author of Guide to Socially Responsible Investment and CSR Management. Part-Time Instructor at Aoyama Gakuin University.

### **Remarks about the Report**

The CSR report is a communications tool in which a company expresses to stakeholders in the broader community its posture on CSR philosophy and different issues in contemporary society. The company states in the report what philosophy it has, what it is specifically thinking about, how it acts, and what it would like to do in the future.

However, the reports of many Japanese companies, especially traditional manufacturers, are centered on an explanation of internal systems and results vs. internal targets, and the reports for external audiences are mostly just revised versions of the internal reports on CSR activities. I had the same impression about this report too.

In his message, President Masao Yoshida touched on his understanding of global challenges such as environmental and poverty issues, the concept of triple bottom lines, and the importance of communicating with stakeholders. The body of the report covers items such as compli-

ance, customers, shareholders and investors, suppliers, and employees. The report covers all of the CSR activities by offices of the Company. The Company deserves high marks for conveying its attitude towards CSR.

But relationships with stakeholders are centered on an explanation of systems and mechanisms. With respect to the environment, the report clearly sets out the performance, objectives, and other aspects in accordance with the PDCA cycle, and this is remarkable for an environmental management report. The Company deserves particular praise for setting a bold target of reducing CO<sub>2</sub> emissions from production bases by 25% in 2009, compared with the 2000 level, and is reducing CO<sub>2</sub> emissions steadily, although the cuts are short of the target.

However, the report does not appear to set out the strategy Furukawa Electric will use to show how it will actively address the global environmental issues, including global warming, that confront humanity and how it will contribute through its core businesses. And although Furukawa Electric deals with copper, the report also fails to make clear the Company's position on the selection of mines and its mineral resources strategy, which are indispensable elements in addressing CSR challenges.

Consequently, I unfortunately had the impression that the CSR report was inadequate as a report on specific CSR activities, although senior management clearly recognizes global warming and poverty as the greatest challenges facing mankind

### After the Interview

However, this impression changed dramatically once I spoke with Chief Social Responsibility Officer Tetsuya Sato. After the interview, I understood that the Company is proactively addressing issues that I felt were not being dealt with adequately when I read the report.

In the field of CSR sourcing, the human rights of people living near mining sites and the ecological destruction of areas surrounding mining sites are global challenges that need to be addressed. Companies that use mineral resources at some point in their supply chains from the upstream position to the downstream are required to avoid what is called dirty mining, or mining in a way that does not consider human rights or the environment. In fact, Furukawa Electric faces expectations from its customers, namely auto manufacturers and home-appliance manufacturers about the use of resources from dirty mining, and it has in turn asked its own suppliers, the ore refineries, about it. Actually the answer seems to be that ore refineries cannot separate ore from dirty mining. Unfortunately, the report does not write about this. "We decided not to mention this because we had not reached a final conclusion." said Mr. Sato.

However, readers will think that the Company is unaware of the issue if the report does not discuss it. The CSR report should report not only conclusions but also ongoing information on what kind of position the Company is taking in addressing social issues. Since dirty mining is a significant social and environmental issue, I hope that Furukawa Electric will continue quiet dialogues with refineries so that manufacturers will encourage mines to address the issue in addition to simply pass on the answer from refineries to customers.

Discussing environmentally friendly products reinforced again for me the fact that copper wire is essential for every product using electricity. Although this may be obvious to people in the industry, it is a discovery to people like me outside the industry. It is widely recognized that



energy saving is the most important action for combating global warming and that energy-saving home appliances and electrical facilities are important. But people are not aware that copper is always associated with energy saving. We could say that copper plays a vital role in the background of a society using electricity. I believe Furukawa Electric needs to spotlight the roles that copper can play in an energy-saving society, to present them in a way that is easy to understand, and to encourage greater public understanding. If the Company then discloses its environmentally friendly product lines and its strategy, it will not only bolster its competitiveness but also clarify its role in society.

Finally, I would like to write about personnel strategy. The report explains diverse work patterns and work-life balance support schemes. I hope the Company will disclose data on users of the scheme as a global company. Data on human resources from Japanese companies tends to focus on Japanese employees. But as production bases are expanding into China, Southeast Asia, and other regions, hiring excellent local human resources becomes an important challenge not only for CSR but also for management. It was mentioned that the Company is considering human resources development programs and a global personnel utilization strategy to secure excellent human resources irrespective of nationality. I hope Furukawa Electric will develop and institute strategies from the perspective of a global Japanese company.

## History of Furukawa Electric's CSR Activities

- 1972 Companywide Rules for Pollution Prevention formulated
- 1974 Environmental Control Department established
  - Energy Conservation Team established
- 1976 Central Quality Control Committee estab-
- Team for Reduction in Use of Specified CFCs established
- 1993 Basic Framework for Protecting the Global Environment formulated (Furukawa Electric's voluntary environmental preservation plan)
- Committee for Companywide Promotion of Energy Conservation established
- 1996 •Use of specified CFCs and trichloroethane discontinued
- 1997 Team for Promotion of Reduction in Industrial
  Waste established
- 1998 Furukawa Electric Basic Environmental Policy formulated
  - Central Committee for Environmental Management established
  - Committee for the Development of Environmentally Friendly Products established
  - Acquisition of ISO14001 certification commenced
  - Companywide Regulations for Pollution Prevention revised to create the Companywide Regulations for Environmental Management
- 1999 Central Safety and Health Committee established
- 2000 Liaison Meeting with Affiliated Companies established
  - First Environmental Report published
  - Meeting of Environmental Personnel established
- 2001 Medium-Term Plan for Environmental Preservation Activities 2002 formulated (for 2001-2002)
  - Environmental accounting started
- 2002 Green Procurement Preparation Committee established

- 2003 Operating Officer System introduced
  - Furukawa Electric Basic Environmental Policy revised
  - Medium-Term Plan for Environment Preservation Activities 2005 formulated (2003-2005)
  - Green Procurement Executive Committee established
  - Liaison Meeting of Consolidated Environmental Management established
- 2004 Medium-Term Plan for Environment Preservation Activities 2005 revised
  - Compliance Committee established
  - Furukawa Electric Group Action Guidelines formulated
  - Furukawa New Leaf established as a special subsidiary offering employment of people with disabilities
- 2005 Green Product Management Committee established
  - Compliance Handbook Version I published
- 2006 Medium-Term Plan for Environment Preservation Activities 2009 formulated (2006-2009)
  - Risk Management Committee established
  - Report published under the revised title "Environmental and Social Report"
  - · Compliance Handbook Version II published
- CSR Division established
  - Chief Social Responsibility Officer (CSRO) appointed
  - Safety, Environment and Quality Promotion Department split into the Safety and Environment Promotion Department and the Quality Promotion Department
  - $\bullet\,\mathsf{CSR}\,\mathsf{and}\,\mathsf{Risk}\,\mathsf{Management}\,\mathsf{Committee}\,\mathsf{established}$
  - Furukawa Electric Group Action Guidelines
    partially revised
  - Report published under the revised title "CSR Report"
  - Corporate philosophy and corporate message of the Furukawa Electric Group formulated
  - Corporate Philosophy Handbook of the Furukawa Electric Group issued
- 2008 Furukawa Electric Basic Environmental Policy formulated
  - Furukawa Electric joined Team Minus 6%
  - Furukawa Electric Group Basic CSR Policy formulated
  - Furukawa Electric Group Action Guidelines partially revised
  - CSR Compliance Handbook Version III published

### Information available via our website

Our website features details of progress with our CSR initiatives and PDF versions of this report and other previously published environmental reports. The relevant materials can be accessed via the following page on the Furukawa Electric website.

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





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