



Building a Sustainable Society

Yokogawa Group Sustainability Report 2006

Building a Sustainable Society

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Passing on Our Precious Global Environment to Future Generations

Contributing to the Creation of a Sustainable Society

A corporation's responsibility is not only to contribute to social development through its businesses, but also to build a sustainable society as a member of that society by protecting the global environment, where all our activities take place.

The Yokogawa Group carries out its business activities in accordance with the declaration that it will contribute to society through its businesses as a corporate body and as a group of individuals following a corporate philosophy that states, "As a company, our goal is to contribute to society through broad-ranging activities in the areas of measurement, control, and information. Individually, we aim to combine good citizenship with the courage to innovate."

Our wide range of product solutions includes the CENTUM Integrated Production Control System and the Enemap Energy Management Package, which help customers reduce their environmental impact by conserving resources, lowering energy consumption, and reducing CO₂ emissions.

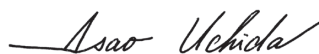
Further, we have established detailed rules for each stage of the product lifecycle, including material procurement, design, production, and disposal, in order to produce environmentally friendly products. This is a part of our effort to reduce the environmental impact of our business.

We ensure thorough legal compliance and the thorough enforcement of our standards for business conduct, with extensive training and other programs to ensure that these codes are effectively followed. This is part of our social responsibilities and ensures that the entire Group maintains healthy and profitable operation.

This report covers the Yokogawa Group's efforts to address global environmental issues and contribute to society from the viewpoint of a global corporation that works together with customers and the community. Featured articles take a look at the energy conservation at the Kofu Factory, the Kanazawa Office's efforts to promote academic and industrial collaboration and to maintain close communication with the local community, initiatives to employ elderly workers and people with disabilities, next-generation education, and environmental conservation and philanthropic activities in China.

We believe that it is our responsibility as a corporation to ensure transparency and accountability in our business by releasing information concerning the environment, people, and society to our stakeholders, along with the steady implementation of the social activities that I have already mentioned. We hope that this report will provide you with a good understanding of the Yokogawa Group's business attitude and activities, and we welcome your comments on this report so that we may continue to improve on our activities.

September 2006



Isao Uchida
President and Chief Executive Officer
Yokogawa Electric Corporation



Objectives of Issuing This Report

The Yokogawa Group began issuing an Environmental Report in 1999. In 2004 it was renamed the “Environmental Management Report” and presented articles on the Yokogawa Group’s environmental activities and approach to environmental management. The report that we are publishing this year is titled the “Yokogawa Group Sustainability Report” and provides even more detailed information on our scaled-up social activities.

Editorial Policy

- This report focuses on corporate social responsibility and features articles on this topic as well as detailed information on our collaboration with people and society.
- To aid understanding and improve collaboration with our stakeholders, this report seeks to describe the Yokogawa Group’s approach to environmental issues and community relations over the past year in a concise manner.
- This report is written in an easy-to-understand format. Headings and brief summaries are used throughout to make the overall ideas easier to understand.
- Photographs and illustrations are utilized to communicate information at a glance.
- Industry jargon and special terms used within the Yokogawa Group are avoided as much as possible.

Period Covered by This Report

April 1, 2005 through March 31, 2006

Date of Issue

September 2006 (The next report is scheduled for September 2007.)

Company Names

In this report, “Yokogawa Group” represents the entire organization, “Yokogawa Electric” represents Yokogawa Electric Corporation, and “YMG” represents Yokogawa Manufacturing Corporation.

Referenced Guidelines

Environmental Reporting Guidelines (Fiscal Year 2003 Version), published by the Ministry of the Environment, Japan
 Environmental Accounting Guidelines (Fiscal Year 2005 Version), published by the Ministry of the Environment, Japan
 Sustainability Reporting Guidelines 2002, published by the Global Reporting Initiative

Data Sources

This report covers the entire Yokogawa Group and is based on environmental data gathered from the 40 Group companies listed below. Individually defined data sources are noted separately in their respective locations.

Japan Headquarters, Yokogawa Electric Corp.
 Yokogawa Manufacturing Corp.
 Yokogawa Field Engineering Service Corp.
 Yokogawa & Co., Ltd.
 Yokogawa Denshikiki Co., Ltd.
 Morioka Tokki Co., Ltd.
 Yokogawa Information Systems Corp.
 YDC Corp.
 Yokogawa Control Engineering Corp.
 Kokusai Chart Corp.
 Yokogawa Digital Computer Corp.
 Nippon System Gijutsu Co.
 Yokogawa Denyo Corp.
 Yokogawa Meters & Instruments Corp.
 Yokogawa Pionics Co., Ltd.
 Yokogawa Serotec Co., Ltd.
 Omega Simulation Co., Ltd.

Outside Japan Yokogawa Electric China Co., Ltd.
 Yokogawa Xiyi Co., Ltd.
 Shanghai Yokogawa Petrochemical Instrumentation Co., Ltd.
 Yokogawa Shanghai Instrumentation Co., Ltd.
 Yokogawa Sichuan Instrument Co., Ltd.
 Yokogawa Shanghai Trading Co., Ltd.
 Suzhou Yokogawa Meter Co.
 Yokogawa Electric Asia Pte. Ltd.
 P.T. Yokogawa Manufacturing Batam
 Yokogawa Engineering Asia Pte. Ltd.
 Yokogawa Electric Middle East B.S.C. (c)
 Yokogawa Australia Pty. Ltd.
 Yokogawa Electric Korea Co., Ltd.
 Yokogawa Electronics Manufacturing Korea Co., Ltd.
 Yokogawa Measuring Instruments Korea Corp.
 Yokogawa Taiwan Corp.
 Yokogawa Europe B.V.
 Rota Yokogawa GmbH & Co. KG
 Yokogawa Marex Limited
 Yokogawa Corporation of America
 Yokogawa America do Sul Ltda.
 Yokogawa India Ltd.
 Yokogawa Electric CIS Ltd.

Corporate Profile (as of March 2006)

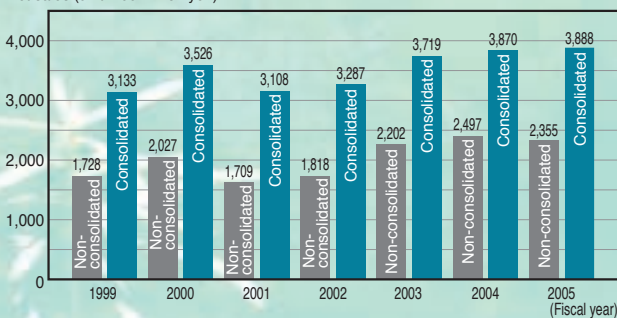
Company name: Yokogawa Electric Corporation
 President and Chief Executive Officer: Isao Uchida
 Founded: September 1, 1915
 Incorporated: December 1, 1920
 Paid-in capital: 43,410.5 million yen
 Net sales: 388.8 billion yen (consolidated)
 235.5 billion yen (non-consolidated)
 Operating income: 25.3 billion yen (consolidated)
 10.1 billion yen (non-consolidated)
 Employees: 17,858 (consolidated)
 5,212 (non-consolidated)

Areas of Operations

- Manufacture and sales of devices and systems relating to measurement, control and information processing, such as electric measurement equipment, measuring instruments, industrial instruments, scientific analyzers, and information systems
- Installation projects relating to devices, and the manufacture and sales of related materials and equipment
- Manufacture and sales of aerospace instruments and other industrial instruments

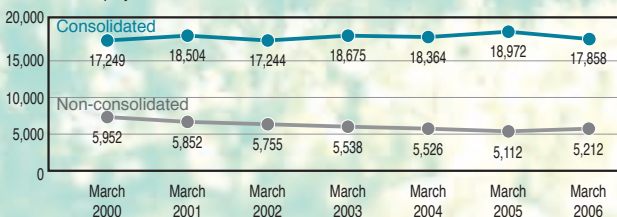
Net Sales

Net sales (unit: 100 million yen)



Number of Employees

Number of Employees



Yokogawa Philosophy

As a company, our goal is to contribute to society through broad-ranging activities in the areas of measurement, control, and information.

Individually, we aim to combine good citizenship with the courage to innovate.

Corporate Strategy: VISION-21 & ACTION-21 (excerpt)

The Yokogawa Group will work together with its customers in the industrial, public sector, and individual consumer domains to create systems that add value and contribute toward the realization of a thriving global society.

The Principles of Yokogawa Group Environmental Management Standards (excerpt)

Environmental Philosophy of the Yokogawa Group

This philosophy is based on the Yokogawa Group's corporate philosophy, which states: "As a company, our goal is to contribute to society through broad-ranging activities in the areas of measurement, control, and information." The Group recognizes that protecting the earth's environment for future generations is crucially important for all humankind. We therefore aim to maintain harmony with the environment while contributing to industrial development.

Environmental Policy of the Group

The Group considers the protection of the global environment to be a key management objective and operates an environmental management system to continuously improve its performance. In accordance with this policy, all companies within the Group will:

- Strive to carry out resource recycling-based operations.
- Contribute to global environmental protection.
- Pursue independent initiatives to protect the environment.

Code of Conduct for Environmental Protection by the Group

The Group will consider the need to protect the global environment in all aspects of its business activities. Therefore, all companies in the Group will:

- Minimize the environmental impact of their activities and promote recycling in their business operations.
- Actively assist customers with their global environment protection activities.
- Actively participate in and cooperate with global environment protection activities wherever they are conducted.



Helping Build a Sustainable Society Through Measurement, Control, and Information

As the global environment is worsening, society is growing ever more demanding of discipline in corporate activities. Kiyooki Okino talks about the Yokogawa Group's approaches to its social responsibility under such challenging circumstances.

Kiyooki Okino
 Vice President of Environmental Management
 Head of Audit & Compliance Headquarters

Contribution to Global Environment Through Our Own Businesses

The Yokogawa Group sees global environmental conservation as one of the most critical business issues, and it has established an Environmental Management System to implement continuous improvements in environmental performance. The three core points in the system are as follows:

The first is to promote the resource recycling business; the second is to contribute to global environmental conservation; and the third is to act autonomously to protect the environment.

Our Environmental Management System has been maintained and improved by concrete activities that reflect the above points, such as compliance with legal and company regulations, promotion of resource recycling business, pollutant reduction, creation of environmentally friendly products, information disclosure, and the establishment of an appropriate promotional structure for these activities.

In a variety of activities carried out in the Group, one of the most effective ways to contribute to environmental issues is to provide products that can be used in an environmentally friendly way by our customers. Each of our business headquarters can contribute to the global environment by creating such products. In other words, I believe that our principle should be one of performing our social responsibilities through our businesses, which are measurement, control, and information.

The Yokogawa Group's environmental management not only focuses our efforts on energy and resource conservation, but also takes into account the need to reduce our customers' impact on the environment by providing them environment-related communications and environmentally friendly products.

In addition to such environmental activities, we also see our support and contributions to local communities and culture as part of our social responsibility. To enhance these two types of activities, we are currently reviewing the Group's efforts to contribute to environmental and community causes.

Contribution to Environmental Conservation through "Visualization"

"Visualization" uses our measuring technology to give a quantified understanding of a variety of factors that are getting in the way of environmental conservation. Our InfoEnergy energy conservation support system gives a visual presentation of energy flows that are not visible to the human eye. If we integrate the Group's technologies, we should be able to quantify a wider range of physical phenomena, such as flow amounts, pressure, and water quality. This quantification will assist in identifying obstructive factors that can be removed and will provide a visible confirmation of the improvements that are made.

Industrial automation and control technology helps optimize production operations by minimizing waste and contributing to resource and energy conservation. This idea of "visualization" is employed in the New Yokogawa Production System (NYPS) that is being promoted throughout the Yokogawa Group. NYPS visualizes all the business processes, including inventory, flow of product parts, and product distribution, to avoid waste and improve efficiency. These efforts resulted in the integration of production sites, reducing their number from nineteen to four. It is our duty to develop such technologies, and offer our technologies and expertise to our customers.

Establishment of Business Ethics and Compliance

Compliance with business ethics and regulations is the foundation of corporate social responsibility (CSR). The purpose of corporate activities is the pursuit of profit; however, the long-term development of a corporation cannot be expected if it pursues profit in an anti-social manner, ignoring laws and regulations. The Yokogawa Group manages its business in a healthy and profitable manner, putting the highest priority on business ethics and compliance.

Compliance does not simply refer to the laws that must be obeyed, but also refers to our own company regulations and other rules. Each staff member is required to behave faithfully according to our corporate code of conduct. The Standards of Business Conduct for the Yokogawa Group includes a message from the president stating that the Group will “build a clean, clear, and open corporate culture.” This message goes on to say that, “by comprehending and observing these standards, we will meet the expectations of our customers and other stakeholders and gain their trust.” By maintaining the highest standards in our activities, we will remain a healthy and profitable operation.

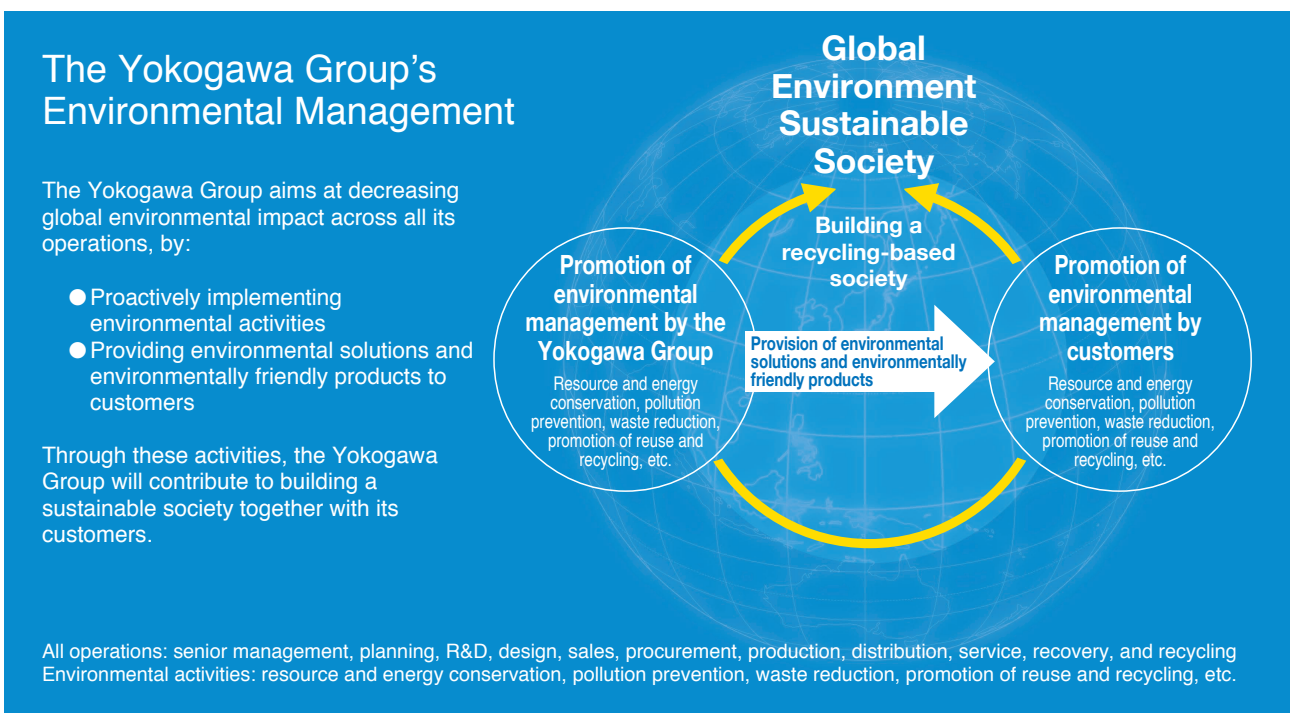
Role of the Sustainability Report

In November 2005, we extended our annual week-long Business Ethics Campaign to a full month and renamed it the “CSR Campaign Month,” to carry out a wide range of events

promoting the concepts of business ethics, compliance, global environment, and risk management. Such a continuous promotion is key to establishing effective business ethics, contributing to society, and protecting the environment; however, sustaining this effort is the real challenge. It is sometimes necessary to introduce fresh, new activities to avoid paying this subject mere lip service. We would like to think of new ways to enhance implementation.

Environmental and social contribution measures introduced in the CSR Campaign Month have made an impact on people by repeatedly underlining the basics, just like we do at the Manufacturing Training Center in each factory, where we ask staff to repeat basic tasks to train them in specific skills. Again, we think that our expertise in manufacturing acquired through our business can be utilized in our CSR activities.

This Sustainability Report also contributes to the “visualization” of the Yokogawa Group’s activities. As for the intra-company effect, this report will show what people in other departments are doing. Sharing information will help each individual to understand his/her challenges and to think about how he/she can encounter such challenges more effectively. For our stakeholders, this report publicizes the Yokogawa Group’s activities and promotes our efforts to meet our social responsibilities.



The Yokogawa Group Begins Energy Conservation Guided Tours at the Kofu Factory

Introductory Visit to Energy Conservation Factory

The YMG Kofu Factory has dynamically employed environmental and energy conservation measures including obtaining an ISO 14001 certificate, running a commuter bus on waste cooking oil, and generating solar power. Now the Kofu Factory is employing an energy conservation support system that is grounded in the leading edge technology of the Yokogawa Group. It also started Energy Conservation Guided Tours in March 2005. The factory continues to evolve, aiming to be a model of energy conservation.

The Factory Is an Energy Conservation Showroom

Energy conservation requirements for large business sites in Japan are being tightened year by year, and the situation now is comparable to trying to squeeze a drop of water from a dry cloth.

Our Kofu Factory has been employing energy and environmental conservation measures since the 1980s, and introduces these efforts in its factory guided tours. In March 2005 the factory started an independent guided tour that focuses on energy conservation measures. The tour has been reorganized and their conservation measures have been improved, making the factory itself a showroom of energy conservation.

Measurement and control is the major business of the

Yokogawa Group, and the energy management system used in facility management is a prime example of the best usage of our technologies. The Energy Conservation Guided Tour not only presents the energy and environmental conservation activities at the Kofu Factory, but also introduces the Yokogawa Group's energy conservation business to visitors.

Visualizing Invisible Energy

The key concept of the energy conservation system is "visualization." The point here is to present the quantified energy consumption and results of energy conservation using different devices as displays. As energy data is not readily visible, it tends to be placed after quality and safety in terms of importance. Our easy-to-understand visualization of energy-related figures, including cost efficiency, is a convincing

Topics Energy conservation support system **InfoEnergy**



InfoEnergy integrates existing systems through networks, combining all the necessary functions for energy conservation and presenting them in a visible format. This helps people to understand the current energy consumption status and identify effective countermeasures. The results from such countermeasures are also visible. This system changes people's perceptions of energy and makes it possible to involve all staff in energy conservation activities.

Topics Energy-conserving secondary pump controller for heat generators **Econo-Pilot Series**



Adding this small controller to an existing water pump controlling system enables monitoring of pump operations anywhere and anytime through a Web browser. It reduces a pump's electricity consumption by up to 90%. In addition to improving the monitoring of energy conservation results, its settings can be changed easily.



presentation that has been well-received by executives from our user organizations.

We have had 270 visitors from 45 companies over the past year, and 82% of these visitors were from manufacturing companies. Most of them were actually responsible for energy conservation measures in their own factories. We can sense from the seriousness of their questions to our guide that they are struggling to realize energy conservation in their working environment.

People Conserve Energy, Not Machines

The tour consists of a 1-hour presentation and a 1 to 1.5-hour walking tour through the Kofu Factory.

The demonstration of the Econo-Pilot series of controllers is a particularly effective presentation of our energy conservation measures. As soon as Econo-Pilot is turned on, the pump speed quickly drops and one of the two pumps ceases operation. Electricity consumption is reduced by up to 90%. This series of events can be seen on a monitor and visitors can visually recognize its effect.

Econo-Pilot also has a variety of other features, including an air shutdown valve that helps reduce the compressor's workload by shutting down the air flow when a pump is not in use. A visual demonstration of each of these features is also given to aid understanding.

Another example of energy conservation is tagging every single light switch in the factory. This tag shows who is responsible for turning on and off the light. Visitors welcome such low-cost energy conservation measures that can be implemented in their workplace immediately. We demonstrate such day-to-day measures so that visitors can utilize the ideas in their own energy conservation activities. We will continue our efforts for energy conservation, aiming to keep a step ahead of our customers so that we can be an energy conservation model for them.



Toshiyuki Ouchi

Facility Management Business
Promotion Department,
Industrial Solutions Business
Headquarters

We gain our customers' trust not only by providing our equipment but also by making them aware of our daily efforts.



Shozo Kono

General Affairs Group
Administration Department
YMG Kofu Factory

The only way to achieve energy conservation is by patiently explaining "why" and "what." Once people realize that it is about eliminating the waste of resources and activities, the rest is understood quickly.



Tomoyo Tomatsu

General Affairs Group
Administration Department
YMG Kofu Factory

Although the focus of the tour, for which I am the guide, is energy conservation, I introduce the topics of the production system and environmental measures to make it more interesting.

Topics

Everyone Is Making an Effort at Energy Conservation



Each light switch is tagged with an employee's name. This reminds staff to turn off the light when they do not need it. Without relying on machines or economic systems, this type of day-to-day effort is also very effective for energy conservation. Small efforts in daily life may accumulate into larger results, and daily practice embeds energy conservation awareness in people.

Topics

Visitors' Comments on the Tour



Our questionnaire for the tour visitors has revealed a high appreciation of the tour program, presentations, description panels, and tour guides. Visitors especially value the open nature of the tour course and the guides' polite but concrete explanations. All the visitors responded that the tour was very informative and useful, and 13% of such visits lead to new orders for facility equipment and systems.

Opening of the Kanazawa Office in January 2006 —A Headquarters for Cutting-Edge Medical Research and Product Development

The Kanazawa Office is the headquarters of the Yokogawa Group's life science business, and is actively involved in the Hokuriku region as a base station for medical R&D through academic-industry collaboration.

Employment of Technical Experts in Hokuriku

Yokogawa Electric's Kanazawa Office opened in January 2006 in Ishikawa Prefecture's Kanazawa Technopark. The Kanazawa Office was built as the Yokogawa Group's life science headquarters to perform research, development, and production of magnetoencephalography (MEG) systems, confocal scanner systems, and new drug discovery support systems. It integrates these three products' development and production sites, which were previously scattered across different locations. Four buildings with a total floor space of 42,000 m² house the Communication Site, the Research Center, the Technical Site, and the Factory Site.

The Kanazawa Technopark is an industrial park that was developed by Kanazawa City to promote value-added industries that employ advanced technologies and R&D with testing facilities. The Yokogawa Group chose to relocate to Kanazawa to pursue collaboration with the Kanazawa Institute of Technology in the research and development of a new MEG system. Support from local government and a close relationship with local corporations also contributed to our choice. There are many universities and research laboratories in Hokuriku, and this attracts workers with excellent skills. The Kanazawa Office intends in principle to employ local engineers, and has already recruited more than 10 engineers as of March 2006.

The Aim to Be a Local Medical Research Station with Academic-Industrial Collaboration

The Kanazawa Office is aware of its corporate role in the local community, and takes the initiative in communicating with

the community, inviting local residents to participate in tours of the premises and taking part in events organized by the local forestry union. The buildings at the Kanazawa Office were originally planned to be four stories high; however, it was subsequently decided to limit their height to two stories because of concerns about the local landscape. The buildings were also designed to achieve a 23% reduction in energy consumption compared to conventional buildings, with extra attention given to the local environment, such as adoption of energy conservation technologies, a rainwater usage system, and pest controls that minimize the use of insecticides.

Each building is spacious and brightly lit. The Research Center, with its collaborative work space for doctors and researchers from outside organizations, provides valuable medical systems such as an MEG system that can actually be used in research, guest rooms for academic work, and conference rooms for holding academic congresses.

The Kanazawa Office is also a member of the Ishikawa High-Tech Sensing Cluster, a knowledge cluster formation project in Ishikawa Prefecture that has been organized by the Ministry of Education, Culture, Sports, Science and Technology and which involves collaboration between academia and industry. It is also participating in the development of a technology for the early diagnosis of dementia. The Yokogawa Group believes that the Kanazawa Office will be able to greatly contribute to the local area in terms of the development of scientific and medical technologies, provision of employment, and improvement of the economy.

Topics MEG System



Neuronal activities in the brain generate extremely weak magnetic fields that are as small as one-billionth the intensity of the Earth's magnetic field. An MEG system detects these minute magnetic fields in a non-intrusive manner. The system can be used for both diagnostic and research purposes, and is expected to be a significant aid in the early detection and treatment of Alzheimer's disease and other forms of dementia, as well as childhood epilepsy and brain damage from accidents.

Bridging Knowledge and Technology

We see our role as being the producers of medical equipment and peripherals, such as the MEG system, and that it is up to doctors and researchers to determine how to actually use such products for diagnosis and treatment. Therefore, we invite doctors and researchers to utilize our Research Center so that their research results can be reflected in future products and systems developed at the Technical Site, and in the final products manufactured at the Factory Site. In this way, with a streamlined procedure, we will bring research results into actual use.



Masakazu Ozawa
Head of Kanazawa Office



A Workplace Where Everyone Is Equal – Employment Stability Is the Foundation of Stable Product Quality

Ahead of others, the Yokogawa Group has actively adopted the employment of elderly workers and people with disabilities, and promotes education for the next generation. Under the principle of “a company grows as its people grow,” we see people as our most important corporate asset.

A Workplace for the Elderly and People with Disabilities

The Yokogawa Group has a more than 30-year history of providing after-retirement reemployment. The Yokogawa Business Office was established in 1975 as a company where retired workers could continue to work, and its name was later changed to Yokogawa Elder. The original idea for this establishment was to provide a workplace where people with enthusiasm for working could fully utilize their skills and expertise. The function of the company has now been inherited by Yokogawa Human Create.

Also, at Yokogawa Foundry, one of the Yokogawa Group companies, there are 21 staff with mental disabilities (18 in the Musashino Office, 2 in the Kansai Office, and 1 in the Kofu Office). Their responsibilities are varied and include disassembling PCs and measuring equipment no longer in use; making business cards, rubber stamps, and product plates; entering data; picking parts on a production line; selling breads, pastries, and lunch boxes in an on-premises snack shop; distributing company mail; and cleaning the site grounds. They share these jobs in turn according to their individual abilities. Yokogawa Foundry is a financially sound and profitable company.

Nursery School Opens in Collaboration with Musashino City

On September 1, 2006, a nursery school, Poppins Nursery Musashino, opened near the Yokogawa Electric Headquarters. This is a part of our next-generation education project, and we worked with Musashino City to open this nursery. Yokogawa Electric is providing the land and building, and a commercial nursery service company is providing the operational services. The facility has its own playground and parking lot so that parents can pick up their children by car. The nursery is certified by the Tokyo Metropolitan Government, and is open not just to local residents but also to Yokogawa Electric employees, so it functions as a corporate welfare service for our employees.

Yokogawa Electric has a high return-to-work rate for employees who have taken maternity and parental leave—as high as 90%—which indicates that it is a women-friendly workplace.

President Uchida often says that employment stability is the foundation of stable product quality. The approach of establishing a workplace where our employees can work securely is indispensable to the creation of superior products, and this is truly being implemented.

Topics **Abilympic Gold Medal Winner**
Yoshihiro Hashimoto
Yokogawa Foundry

The Abilympics are an occupational competition for people with disabilities. Mr. Hashimoto joined Yokogawa Foundry in September 2004, and participated in the Tokyo Abilympics data entry competition in February 2005. He won the gold medal in the competition and proceeded to the national competition in October. “In the national competition, I first felt the assignment was difficult but I just carried on working, trusting in my skills. It was a great surprise when I finally won the gold medal in the national competition!” he joyfully told us. Mr. Hashimoto usually works on a variety of tasks including making business cards, entering data, helping in the snack shop, and carrying out general administrative work. He is most confident in his business card making skills.



We are making efforts to employ people with mental and other disabilities. As there are a number of staff with physical disabilities both at Yokogawa Electric Headquarters and other group companies, we pay attention to creating a barrier-free working environment.

General Manager of the
Human Resources and General
Affairs Division, Management
Administration Headquarters

Dota Aizawa



We adopted maternity and parental leave, and maternity and parental part-time working, even before the national laws were established, and some of our systems are better than the national standards. The opening of the nursery school was the result of our further consideration of how to improve the working environment for employees who are rearing children.

Career Design Department,
Human Resources and General
Affairs Division

Naoki Yoshihara



Yokogawa Foundry is working on arranging tasks for staff with mental disabilities so that they can work more independently. Their working areas are expanding. Also, each staff member is actively challenging a variety of tasks.

Career Design Department,
Human Resources and General
Affairs Division

Yumiko Hirata



Implementation of Environmental Management System in China – Responding to Global Demand Through a Cross-border Approach

The Yokogawa Group has participated in a number of environmental conservation and social activities in China, introducing the advanced Environmental Management System at Yokogawa Electric China, which was established in 2002. This article reports on some of these efforts.

Production Site Completed in Suzhou, Historic Canal City

Suzhou is located in the Chang Jiang delta in the east of China. It is a historic city with many canals, and is experiencing dynamic economic growth. The large oceanfront city of Shanghai is about an hour's drive away, and many enterprises from all over the world have offices in Suzhou because of its convenient location.

Suzhou Industrial Park, located in the east of Suzhou, was developed in the 1990s through a joint venture between China and Singapore. This high-tech industrial park boasts a massive 260 km² area, with a convention center, hotels, shopping malls, skyscraper apartment buildings, schools, parks, and even sports facilities. Compared to the old Suzhou town, this new city has lots of greenery and many distinguishing and futuristic characteristics. It was 2002 when Yokogawa Electric China Co., Ltd. was established as the Yokogawa Group's manufacturing headquarters in China, with a 100% investment by Yokogawa Electric, here in Suzhou Industrial Park.

Early Implementation of Yokogawa's EMS

Yokogawa Electric China commenced business operations in October 2003 and has always followed the Yokogawa Group's Basic Environmental Management Rules, even establishing its own Environmental Management System (EMS). It was ISO 14001 certified in May 2005, and has received three regular audits since then.

The company has maintained a steady environmental track record by accomplishing the environmental targets set each fiscal year, such as reductions in CO₂ emissions, improvement of the waste recycling rate, and the reduction of environmental pollutants. The central management system contributes to energy and resource conservation by constantly monitoring various operational aspects, including energy and water consumption, temperature and humidity, and operational status of compressors. Fumes are passed through an advanced air purification tower, so the hazardous substance concentrations in the emissions are one-tenth of the accepted residue figures specified by the Chinese regulatory standards. Hazardous substances in effluents are also purified to one-

Topics Customer Response Center Opens in China



To provide effective after-sales support for the Yokogawa Group's products in China, a customer response center opened at Yokogawa China, Shanghai, in June 2005. This customer response center provides after-sales services all over China, linking with the sales departments and service departments in different areas, and with the Global Response Center in the Yokogawa Electric Headquarters. Five staff are currently handling enquiries through telephone and e-mail. The number of technical support staff is expected to increase in the future.

Topics Support Program of the Yokogawa Group in China

From left: Xie Zheng, Hironori Takenouchi, and Guan Dan of General Affairs and Personnel Department, Management Division, Yokogawa China, a sales, engineering, and service headquarters in China. They are in charge of administering the support program.



In China, compulsory education is not provided free of charge and this prevents children in deprived rural and inland regions from going to elementary school. The Yokogawa Group in China has integrated its social activities that were previously carried out separately in different locations, and established "Yokogawa Hope," which supports children by paying for their schooling with the help of Yokogawa staff. Annual schooling fees vary according to region, ranging between 100 and 300 yuan. The fosterage system in principle ensures payment of 6 years (5 years in some regions) schooling until they graduate. The number of supporters has now reached 1,511 in the Yokogawa Group in China (49 Japanese staff), and 653 children had received support from a fund of 110,000 yuan (around 1.53 million yen) by April 2006. Yokogawa China functions as the administration office and manages operations and information in different locations in China. A communication network has also been established among supporters for the long-term support of the children.



third of the Chinese regulatory standard figures, and 90% or more of the cleaning water used for product surface treatment is recycled. As for other hazardous substance emissions, toluene and xylene emissions from the coating process have been fully eliminated and cyanide emissions from plating are planned to be eliminated by October 2006. The company is also working to eliminate six substances specified in the EU's RoHS Directive by establishing a dedicated project, keeping pace with the movement across the entire Yokogawa Group.

As well as environmental education of staff, Yokogawa Electric China has also created an environmental promotion leaflet together with the Suzhou Industrial Park Management Committee and distributed it to park residents. Its own environmental report is also distributed to customers and neighboring residents. This environmental report will be distributed to suppliers throughout China. The company is also planning to promote environmental conservation activities, forming a network with Japanese enterprises in China.

The company aims at the production and global distribution of recorders and flowmeters with full responsibility—from material processing to assembly. Our quality, production capacity, and delivery duration have now achieved parity with those in Japan. While China is rapidly growing, it also faces serious problems in environmental and energy issues. In addition to complying with the regulatory laws, we try to be one or two steps ahead with environmental conservation actions, in collaboration with neighboring companies, to become the No.1 plant in the world.

President
Yokogawa Electric
China Co., Ltd.

Kimimasa Hiromi



Production of the World's Largest Flowmeter

Yokogawa Electric China produces flowmeters with calibers from 2.5mm to 2,600mm. To calibrate their precision, products are physically tested by flushing about 1,000 tons of water, which is stored in a ground-level tank, through them. In the 2,600mm flowmeter test, the water flushes through the meter in about 30 seconds. The used water is collected through pipes into a separate underground water tank, and then pumped back to the original tank so that the water can be used again.



Environmental management promotional members in Yokogawa Electric China. From back left: Yoshio Takagi, General Manager of Factory Administration; Mitsuo Tanaka, General Manager of Manufacturing Technology and Management; President Hiromi; Cheng Guo Qiang, Deputy General Manager of Quality Assurance; Meng Bin, Manager of General Affairs Department. From front left: Liu Juan, Quality Assurance Department; Dong Gai Yun, General Affairs Department.



A school visit prior to giving donations. Manabu Sasada, the Chairman of Yokogawa China, who promoted the support system, is surrounded by children. Visits were made to three elementary schools in Qinghai province, which is located in central China, borders on Xinjiang Uigur province and Tibet, and has an average altitude of 3,000 meters. Children's encyclopedias were also presented at this visit.

Topics Suzhou Yokogawa Meter Staff Volunteer to Plant Trees



A Tree Planting Day was held on March 12, 2006, in Suzhou. Suzhou Yokogawa Meter staff and their families, 45 in total, participated in this voluntary activity and planted 50 young trees under the guidance of experts, in designated areas. Among others, they planted the camphor tree, which is a symbol of Suzhou. Suzhou is keen on adding to its greenery to prevent the environmental deterioration that comes from industrialization. The Tree Planting Day is a part of Suzhou's greenery promotion activities, and local companies and citizens are invited to participate every year. The Yokogawa Group will continue to contribute in this endeavour through activities undertaken by the local community.

Active Involvement in Society as a Responsible Corporate Citizen

To celebrate Yokogawa's 90th anniversary, a friendship and appreciation festival and classical music concerts were held. Yokogawa Electric Headquarters' sports ground and surrounding area were also improved and opened to the public for this occasion.

Sharing a Good Time with Local Residents

(1) Festival to Celebrate Yokogawa's 90th Anniversary

On the occasion of the Yokogawa's 90th Anniversary, a Friendship and Appreciation Festival was held on October 3, 2005, at the newly improved sports ground near the headquarters of Yokogawa Electric. The festival had a multicultural feel—with stalls selling food from different parts of Japan and various countries in which the Yokogawa Group has a presence, a dance show, and an acrobatic group from China—and this attracted many people to the celebrations.

A total of 13,000 people attended the festival, and people were lining up in front of all the stalls. Traditional stalls with a yo-yo catching and a target shooting, and a playground provided fun for the children, and crowds of people thronged around the stage where the shows were presented. The festival came to an end in a very cheerful atmosphere.

(2) Chamber Music Concert by Members of Vienna Philharmonic Orchestra

As a part of Yokogawa's 90th anniversary, a chamber music concert by members of the Vienna Philharmonic Orchestra was held at Musashino Civic Culture Hall on October 10, 2005. In addition to about 1,000 Yokogawa Group employees, almost 200 Musashino city residents were invited to the concert.

During the 2-hour concert the audience enjoyed performances by a string quartet and a wind and string octet. The hall was filled with an enthusiastic ovation at the end of the concert.

Another special concert by the Vienna Philharmonic Orchestra was held in Suntory Hall on October 17, exclusively for an audience specially invited by the Yokogawa Group. About 2,000 guests enjoyed this wonderful performance. The audience was chiefly from the financial sector, and a number of well-known personalities were seen at the concert. It was indeed a gala event worthy of the 90th anniversary.

Yokogawa Group Technology Innovation Fair

As the final event marking Yokogawa's 90th anniversary, a Yokogawa Group Technology Innovation Fair was held at the Century Hyatt Tokyo from October 26 to 29, 2005. The fair was filled with visitors every day.

The exhibition site was divided into three zones named "The Origins," "The Solutions," and "The Future," to show the Group's history of product development from its origins to today, current businesses, and technologies for the future. A symposium concerning global business was held as well as specialist seminars. We arranged set days for different visitors, such as employees and their families, alumni, people from Group companies and sales representatives, and students who are interested in working in the Yokogawa Group in the future. It was a very significant four-day event in which more than 7,000 visitors could learn in depth about the Yokogawa Group's technical capabilities.



Yokogawa 90th Anniversary Friendship and Appreciation Festival



Yokogawa Group Technology Innovation Fair

Newly Turfed Sports Ground at Yokogawa Electric Headquarters Is Opened to Public

Yokogawa Electric Headquarters' sports ground and its surrounding area have been improved as a part of Yokogawa's 90th anniversary activities. The completion ceremony was held on September 19, 2005, and the ground was opened to the local community. The sports ground was covered with artificial turf to prevent dust from being blown outside the ground, a pedestrian path was built outside the sports ground, and the area was planted with trees and bushes. Some of the surrounding area had been used as a parking area in the past, but this portion of land is now part of the pedestrian path. This provides extra space for pedestrians to walk safely and wait for traffic signals, and it also reduces congestion during the rush hour. Thus the pedestrian path has contributed to improving safety, scenery, and convenience.

The sports ground is equipped with a storage building, an underground water pump, and a water purifier, so that it can also function as an evacuation site for local residents in the event of a disaster, with the provision of drinking and daily supply water. Toilets are also planned for such an emergency situation.

President Uchida introduced the pedestrian path in his speech at the ceremony, saying, "We are paying extra attention to the greenery around the pedestrian area of the sports ground and the outer border of the company premises, hoping that our neighbors will take a walk there." In return, one of the ceremony guests kindly complimented our effort by saying, "We really appreciate your concern for the scenery, and for preparing

for an emergency, as a part of your contributions to the local community."

A corner of the newly turfed sports ground was also opened to public on the day of the community festival, and visitors enjoyed walking on this plush, new surface.

Support for Local Sports Promotion

On October 15, 2005, the Musashino City Mini Rugby Festival and an official game featuring Yokogawa Electric's amateur rugby club were held at the company's sports ground. This festival was held on the same day as the first official game at the new sports ground to give local residents an enjoyable opportunity to get some exercise.

Elementary school pupils from rugby clubs in Musashino City, Koganei City, and Akishima City as well as other local schools were invited on that day, and some training sessions by instructors and games between the clubs were held. The children enjoyed having this occasion to run around on the new turf.

On December 18 and 25, rugby practice sessions were held for high school rugby club members, mainly from the Tama area. Nine teams attended and they were all delighted with the experience of playing games on the artificial turf.

Yokogawa Pionics is another Yokogawa Group company that is keen on sponsoring local sports activities, such as baseball and soccer for children, swimming, and tennis.

The Yokogawa Group will continue with its sports promotion activities even more actively after marking this occasion of the sports ground improvement.



New artificial turf at Yokogawa Electric's sports ground

The pedestrian path around the sports ground is appreciated by local walkers



Musashino City Mini Rugby Festival

Active Involvement with Society as a Responsible Corporate Citizen

As a local corporate citizen and citizen of the earth, the Yokogawa Group supports local environmental conservation activities, the nurturing of the younger generation, disaster recovery, and various academic and cultural activities.

Participation in Local Cleanup Activities

May 30 is “No-Rubbish Day,” an annual cleanup day in Musashino City, where the Yokogawa Electric Headquarters is located. Every year, on the first Sunday following the No-Rubbish Day, people gather to clean the areas around the Kichijoji, Mitaka, and Musashi-sakai railway stations. The Yokogawa Group participates in this activity every year to contribute to the local community, maintain harmony with local communities as a responsible corporate citizen, and conserve the environment along the route that employees commute to work. In 2005, the cleaning activity was held on June 5, and the Yokogawa Group’s staff, former employees, and their family members participated. The participants picked up rubbish, cigarette butts, drink cans, and so on from the north exit of Mitaka station to the adjoining Bunka Kaikan-dori Avenue.

From July 9, 2005, the north side of Mitaka station and surrounding areas were designated non-smoking areas. Stickers proclaiming, “No Smoking on the Street” and “Don’t Throw Away Cigarette Butts,” are displayed, and ash trays were placed at designated smoking areas called “manner points.” The Yokogawa Group also helped Musashino City distribute non-smoking notification flyers during the promotional period between July 6 and 15. Further, we joined another cleaning session during a “Smoking with Manners” campaign held by Musashino City in November. According to Musashino City, the number of pedestrian smokers was reduced by 79% and the number of dropped cigarette butts on the streets was reduced by 63% after the No Street Smoking scheme was introduced. At the same time, the number of cigarette butts discarded at the specified smoking areas increased by 15,000 in the three month period, indicating that street smoking behavior has certainly improved.



No Rubbish Day cleaning activity

In addition to the people from Yokogawa Electric Headquarters, Yokogawa Group staff from the YMG Kofu, Komine, and Ome factories participated in cleaning activities in their communities. Staff from the YMG Komagane Factory took part in a picnic to promote environmental concern along the Tenryu River system, as well as a cleaning activity, and Yokogawa Denshikiki supported an anti-illegal dumping campaign. The Yokogawa Group is actively involved in local environmental management through the environmental conservation efforts of its individual companies.

Support of Local Greenery Promotion

(1) Support of the *Michi Machi Midori* magazine

A citizen group in Musashino City publishes *Michi Machi Midori*, a magazine that promotes greenery in Musashino City and which has the aim of achieving a 30% greenery ratio* in the town. The Yokogawa Group financially supports this publication and helps its greenery promotion activities. The magazine provides information to local residents on how to appreciate and enjoy the greenery and nature, and helps them understand the importance of green areas by giving information on woodlands that are open to the public, the health benefits of trees, and the shops that sell local agricultural produce. Every issue has been well received by the readers.

(2) Support of Forest Conservation

The Takao Forestry Group is a voluntary body organized by the Nature Conservation Committee of the Japanese Alpine Club, under the Public-Participation Forestry project of the Forestry Agency. Yokogawa Electric supports this forest conservation activity by donating funds to the Committee’s activities.

*Greenery ratio: The percentage of land in a specific area that is covered by greenery

Michi Machi Midori magazine is issued quarterly. Each issue provides information on the greenery and the environment in Musashino City, where the Yokogawa Electric Headquarters is located.



Nurturing the Younger Generation

(1) Tokyo Metropolitan Sumida Engineering High School

Yokogawa Electric's Communications and Measurement Business Headquarters and Yokogawa Meters & Instruments dispatched engineers and measuring equipment to Sumida Tech High School for a class in which students measured the electrical characteristics of a fuel-cell powered motorbike. Masashi Sato, a Vehicle Engineering Department teacher, and his students, were able for the first time to get the precise electric characteristics of a fuel-cell powered motorbike that they had built. The class was also meaningful for Yokogawa, as the measurement data brought up issues that need to be addressed in fuel-cell vehicle development. This hand-made motorbike is the first fuel-cell powered motorbike in Japan to qualify for a registration number enabling it to run on the open road. As many companies have supported this project, a variety of sponsoring company stickers including the Yokogawa Group's are displayed on the motorbike's frame. The bike was also displayed at the 2nd International Hydrogen & Fuel Cell Expo held at Tokyo Big Sight, January 25–27.

(2) Continued Sponsorship of Scientific Technology Contest

To cultivate the next-generation of scientific technology, the Yokogawa Group sponsored the Japan Science & Engineering Challenge, a scientific and engineering research contest for high school and vocational high school students, for the second year running in fiscal year 2005.

(3) Sponsorship of Su Tian Fund Trainees

A group of 16 apprentices from the Yokogawa Foundation of Training of Human Resources for Instrumentation in Commemoration of Su Tian were at Yokogawa Electric Headquarters between September 8 and 16, 2005, to learn

about Yokogawa Electric's personnel system, quality assurance system, and environmental management activities. The foundation was established in 1991 by the late Shozo Yokogawa, then Chairman of Yokogawa Electric, to commemorate the death of Su Tian, former Director of the State Administration of the Chinese Machinery Industry. To celebrate the great achievements of Su Tian, a contribution of 500,000 dollars (followed by a second 500,000 dollar contribution) was made to the fund to cultivate the individuals who would participate in the measurement, control, and information industry in China. Since the inauguration of the foundation, the Yokogawa Group has accepted 122 trainees and many of them are now actively working as leaders in the Chinese measuring equipment industry.

Promotion of the Export Control System

The regulations on security-related export controls, including in the areas of nuclear and missile development, have been tightening globally. The Japanese government asks Japanese corporations to comply with all export control laws, and at the same time it promotes export controls in neighboring countries through training and seminars of the relevant governmental officers in each country. The aim is to organize a cross-border export control system, particularly among Asian countries. This is because one country's efforts alone are insufficient.

As a part of this promotional activity, Yokogawa Electric's Export Compliance Department provided training on November 17, 2005, to five officers who are responsible for export controls in Asian countries such as Cambodia and Myanmar. The training session covered the up-to-date export control measures adopted by the Yokogawa Group, including sites outside Japan, so that the officers could learn how a Japanese corporation handles this issue. The training session was well received by the officers and it is expected that the session will lead to the improvement of export control systems in the relevant countries.



Measurements being made at Sumida Tech High School

Disaster Recovery Support and Cultural Support Provided in FY2005

| | |
|---|----------------|
| • Support of the victims of the Fukuoka Prefecture Western Offshore Earthquakes | May 2005 |
| • Support of the victims of Hurricane Katrina | September 2005 |
| • Support of the victims of the Pakistan Earthquake | October 2005 |
| • Support of the victims of Typhoon Nabi | October 2005 |
| • Support of the Middle Eastern Culture Center in Japan | December 2005 |
| • Support of the Musashino Cherry Blossom Festival | February 2006 |

Providing the Same Quality Worldwide for Customer Safety and Satisfaction

The Global Response Center, along with a showroom and a demonstration room, was renovated to serve as the worldwide focal point for the provision of same quality services, with a special focus on providing expertise and technologies to customers outside Japan.

Aiming at Providing the Same Quality Worldwide Through the Quality First Approach

“The Yokogawa Group provides the same quality solutions everywhere throughout the world.” This is the brand image of the Yokogawa Group over the years and it is more and more recognized throughout the world, supported by our Quality First approach, which is one of our founding principles, maintained for more than 90 years.

The Yokogawa Group’s products are created under conditions where the highest priority is given to quality, and this distinguishes the Group from everybody else.

The principles of the Yokogawa Group’s quality management (QM) are: Quality Assurance (QA), Quality Improvement (QI), and Quality mind (Qm). Only when all three principles are engaged can customer satisfaction and long-term trust be acquired. Qm is particularly important in protecting Yokogawa’s high quality. The importance of having the Quality First approach is ingrained in Yokogawa Group personnel across the world, and the quality is maintained by standard rules and concepts shared throughout the Group. This enables the Yokogawa Group to ensure that its products and services are of the same quality throughout the world. At the same time, we listen carefully to our customers. Customers’ comments come through the response centers or the sales and service departments, and this is a source of very important information. Feeding such information back into the products, an even higher quality can be achieved.

The Yokogawa Group utilizes information from our customers through our global staff, and continues to maintain the same quality worldwide, keeping in mind our founding principle of putting quality first, in day-to-day operations.

Brand Improvement and Quick Response (1) Launch of Global Response Center

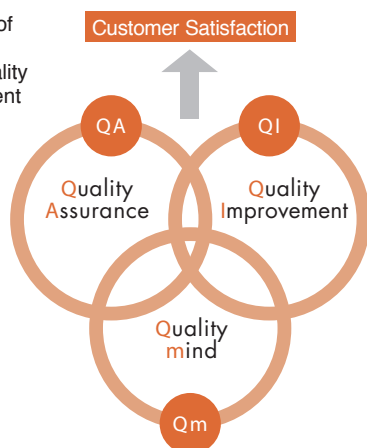
The Global Response Center moved from Tachikawa City to the second floor of the main building at the Yokogawa Electric Headquarters, and launched its service on June 13, 2005.

The Global Response Center is the representative customer service contact point for a variety of enquiries and complaints concerning systems and equipment. The nature of problems and troubles are carefully analyzed and a response made by specialists. The center provides 24-hour/365-day support, centered on the remote monitoring technology developed over the years so that the control systems at customers’ sites are kept in sound operation.

The center is also equipped with various versions of the CENTUM Integrated Production Control System, so that enquiries can be checked by actually operating the system. This enables the respondents to provide operational instructions from the viewpoint of our customers.

Taking this occasion of the relocation to and the re-launch at the headquarters to make a fresh start, we will seek further structural improvements to become a service-oriented company.

Principles of
Yokogawa
Group Quality
Management



The recently opened YOKOGAWA GLOBAL Response Center on the second floor of the headquarters' main building.

(2) Renewal of Showroom and Demonstration Room

On June 14, 2005, the refurbished showroom and demonstration room were also opened on the second floor of the main building at the Yokogawa Electric Headquarters. The showroom is designed to communicate the Yokogawa Group's business concept, Enterprise Technology Solutions (ETS), displaying our products and description panels, as well as various devices that introduce next-generation telecommunication technologies. This is a dynamic, interactive showroom where visitors can actually see and touch our products. A large audio visual system is also installed at the back of the showroom to screen presentations of the Yokogawa Group's business capabilities. The demonstration room is divided into two zones: one is for field equipment and IA systems, and the other is for semiconductor testers. Both have actual installations of products such as a CENTUM series system and an ST6730 FPD Driver Test System.

Renewal of the showroom and demonstration room has enabled us to invite visitors, supporting the sales promotion activities of each business headquarters, and has added further value to the Yokogawa Group brand.

Introduction of Personnel Management and Technical Training Skills for Customers Outside Japan

On October 19 and 20, 2005, the same training in personnel management and technical training that is conducted at

Yokogawa Electric was provided to staff from the Thailand Siam Cement Group. Two Siam Cement Group companies are planning to launch an R&D center, and requested this training through Yokogawa (Thailand), Ltd. The first day of training was a lecture at Yokogawa Electric Headquarters, focusing on approaches to technical training and research & development. The second day was a guided tour of the Kofu Factory. Many questions were asked during the lecture and tour, and the Siam Cement staff seemed to be genuinely inspired by our management system.

International Customer Support

The Yokogawa Group maintains close communications with its customers outside Japan, and provides a variety of training courses to these customers concerning measurement and control at the Yokogawa Electric Headquarters Training Center as well as in Singapore, China, Korea, India, USA, Netherlands and other countries.

The figures in the table shows the number of customers who received the training at the Yokogawa Electric Headquarters. More than 100 customers from outside Japan visited us in fiscal year 2005, mainly for CENTUM-related courses, but also involving Exapilot, STARDOM, and auto control systems.

We will further enhance the close relationships with our international customers and improve the training contents so that a greater number of our customers can take these courses.



Remodeled showroom

Courses Provided for International Customers in FY2005

| Course | Country/Region of Participants | Number of Participants |
|--|--------------------------------|------------------------|
| Basics of CENTUM (including engineering and graphics) | China, Taiwan, Korea | 52 |
| Industrial Measurement | Taiwan | 4 |
| CS3000 Engineering | Middle East | 24 |
| CENTUM CS Overview | Middle East | 13 |
| STARDOM FCN/FCJ Introduction | Korea | 2 |
| Exapilot Introduction/Application | Korea | 4 |
| First Step Measuring | Korea | 1 |
| Auto Control | Korea | 1 |
| Industrial Measuring Basics for Practical Use | Korea | 1 |
| Advanced Control | Korea | 1 |
| | | Total 103 |

Strict Business Ethics and Careful Risk Management

To raise employee awareness of corporate social responsibility (CSR), a month-long CSR campaign was conducted with CSR lectures presented by experts. For improved risk management, an emergency drill simulating a major earthquake was held, and protective helmets were distributed.

CSR Lectures for Compliance with the Standard of Business Conduct to Maintain a Sound Workplace

On November 29, 2005, a lecture on the topic "Corporate Social Responsibility and Business Ethics" was presented by Professor Junichi Mizuo of Surugadai University at Yokogawa Electric Headquarters. This lecture was arranged to close out our CSR campaign conducted throughout November, and Professor Mizuo covered a wide range of CSR issues, from "What is CSR?" to the underlying conduct of compliance, strategic CSR, CSR activities specifically suitable to the Yokogawa Group, and the most effective way of implementing them. Professor Mizuo emphasized the importance of gaining employees' understanding and affirmation. Despite the fact that this lecture started after the end of the working day, more than 100 employees attended and listened with great interest.

Emergency Drills to Ensure Safety at Business Sites

The Yokogawa Group in Japan conducts large-scale emergency drills twice a year, in spring and fall. In fiscal year 2005, the spring emergency drill was held in May and the fall drill in November. In addition to these drills, protective helmets were distributed in September and emergency demolition and rescue training was given in March.

In particular, the distribution of protective helmets to all staff in Japan in September 2005 provides insurance against a big earthquake. Helmets are now supplied at all business sites in the proximate regions where the risk of future earthquakes are said to be high, such as the central Tokyo, Tokai (Shizuoka Prefecture), Tonankai (Shizuoka and Mie Prefectures), and Nankai (Wakayama Prefecture and Shikoku islands) areas, and Miyagi, not only for permanent and temporary employees, but also visitors. Helmets will also be distributed at business sites in other areas.

The November general emergency drill was conducted at the Yokogawa Electric Headquarters' sports ground, which has been designated an emergency evacuation location. Thanks to the Musashino Fire Department and the Musashino Police, participants could view a Special Forces vehicle designed for use during a chemical or nuclear attack, experience a fire smoke simulator and an earthquake simulator that can simulate an earthquake with an intensity of up to level 7 on the Japanese scale, and sample emergency food rations. The event helped to raise disaster awareness among the participants, which included Yokogawa Group employees and local residents.

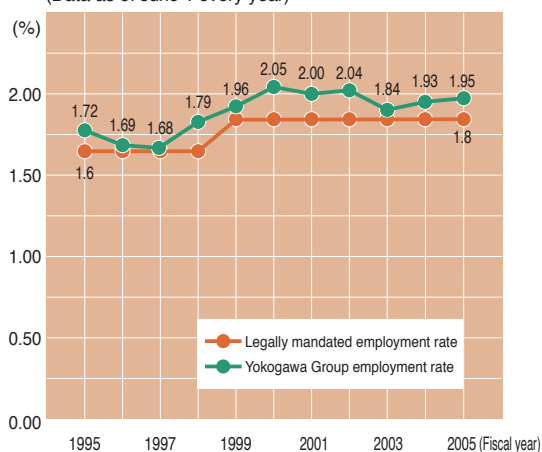
For use as a training site in the March 2006 earthquake disaster drill, Yokogawa Electric Headquarters provided the Musashino Fire Department a building that was scheduled to be demolished, and Yokogawa Electric's private fire brigade joined in this training. Instruction in the use of an engine cutter, drills, powerful hammers, and other specialist tools was provided by the Musashino Fire Department fire fighters. Participants were able to experience emergency demolition training as if in an actual rescue operation and realized the difficulty of the work and the importance of being trained and ready for a disaster.

Employment of People with Disabilities and Workplace Safety and Health

Continuing from the previous year, a total of 12 Yokogawa Group companies achieved the legal disability employment rate of 1.8% in fiscal year 2005.

Conferences by the Safety Committee and the Health Committee are held monthly to secure the employees' safety and health and to provide an appropriate working environment. The Safety Committee is responsible for regular patrols within the premise to eliminate potential dangers. The following tables show the disability employment rate and the number of work-related accidents, respectively.

Disability Employment Rate for the Past Ten Years
(Data as of June 1 every year)



Work-Related Accidents over the Past Five Years at Yokogawa Electric

| Year | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|------------|------------|------------|------------|------------|
| Annual average number of workers (persons) | 6,376 | 5,750 | 5,625 | 5,763 | 6,366 |
| Total actual labor hours (hours) | 12,691,373 | 11,263,598 | 11,179,692 | 11,381,745 | 11,813,914 |
| 4 or more days missed (persons) | 2 | 2 | 1 | 1 | 1 |
| 1 to 3 days missed (persons) | 2 | 1 | 3 | 2 | 2 |
| Subtotal (persons) | 4 | 3 | 4 | 3 | 3 |
| No days missed (persons) | 17 | 12 | 15 | 22 | 34 |
| Total | 21 | 15 | 19 | 25 | 37 |
| Total days missed (days) | 158 | 86 | 43 | 74 | 30 |
| Lost work days (days) | 129.9 | 70.7 | 35.3 | 60.8 | 24.7 |
| Incident rate (national average 1.77) (persons) | 0.32 | 0.27 | 0.36 | 0.26 | 0.25 |
| Incident rate (national average 0.12) (days) | 0.010 | 0.006 | 0.003 | 0.005 | 0.002 |

Incident rate (persons) = $\frac{\text{Number of workers who died or were injured in work-related accidents}}{\text{Total actual labor hours}} \times 1,000,000\text{H}$ Incident rate (days) = $\frac{\text{Total lost work days}}{\text{Total actual labor hours}} \times 1,000\text{H}$

Communication Between Departments and Between Generations to Cultivate and Pass on Expertise, Technologies, and Skills

While production processes have become more automated, global production sites have been established, and the employment system has changed, the Yokogawa Group continues to maintain and pass down the expertise gained over the years to ensure its further development.

First Female Patent Attorney Arrives at Yokogawa to Protect Patents and Trademarks

Nobuko Kikuya of the Intellectual Property and International Standardization Department, Corporate Research and Development Headquarters has passed the patent attorney examinations. After completing her formal registration as a patent attorney in December 2005, she became the first female patent attorney in the Yokogawa Group. She had studied for these exams in her spare time, while working full-time in the Yokogawa Group during the day, and she passed the difficult exams on her fourth attempt. She told us that she would like to gain experience working as an attorney on patent applications, and hopes eventually to work on patent-related lawsuits to make the best use of her qualifications.

A Total of 2,147 Newly Certified Engineers

A certification system for product design engineers has been introduced by the Design Standardization Engineering Department, Target Costing Headquarters, Yokogawa Electric. The restructuring of Group production sites has brought about significant cost savings in production, but at the same time, the opportunities for information sharing and exchange between the production and engineering departments have decreased. As a result, it has become important to make production go more smoothly through comprehensive standardization and the elimination of redundant processes, through product design optimization to increase production efficiency, and by establishing a method for keeping track of the production status. Under these circumstances, the Engineering Staff Certification System was introduced to ensure engineers' knowledge concerning design rules and production basics. Certification is targeted at (1) product design engineers at business headquarters; (2) quality assurance departments personnel; and (3) personnel of the manufacturing engineering departments or manufacturing departments who have been appointed by the

department head. A total of 2,147 people passed the examinations this year (99% pass rate). Those who have been certified must renew their certification every two years to keep their knowledge up to date. This certification system will be continued in the following years.

Passing Down Skills and the Joy of Manufacturing to the Next Generation

A Manufacturing Training Center was established within the Sourcing and Manufacturing Business Headquarters in April 2004 in order to support the passing on of skills from the generation that cultivated Japan's manufacturing era to the next generation, thereby preventing the loss of such skills upon the retirement of the older generation. The Center has branches at the Komine and Kofu factories, which are responsible for Japan production, and also at factories in China, Singapore, and Korea. The mission of the Center is to clarify what skills and abilities are required, provide training in these skills and abilities to a unified level, and propagate these skills and abilities.

The manufacturing skills referred to here vary widely. They include, for example, precision cutting, processing, and press-fitting. Nowadays, soldering is carried out by machine. However, the finish of the soldering (wetness, gloss, amount, and appearance) is visibly checked by a person. If any of these characteristics are unsatisfactory, the checker may manually correct the soldering work. If the checker does not have sufficient soldering skills and expertise, that person cannot make the appropriate judgment and correct the problem manually. In the past, such skills were naturally passed down in the work environment on a one-to-one basis, from senior to junior engineer. Unfortunately, this rarely happens in today's workplace.

The Manufacturing Training Center, therefore, plays an important role of retaining Japan's world-leading manufacturing skills and an international role of raising the level of production skills at production sites outside Japan.



Nobuko Kikuya, Intellectual Property and International Standardization Department, Corporate Research and Development Headquarters, with her patent attorney badge and certificate of registration



Hajime Aoyagi

(stationed in Kofu)
Manager of the Manufacturing Training Center,
Sourcing and Manufacturing Business Headquarters

Passing down skills is passing down the joy of manufacturing. Skills are directly reflected in product quality. Nothing can surpass the feeling when you create something of high quality with our own hands and you feel the joy of having created excellence. My job is to help people experience this.



Hideaki Watanabe

Board Mounting Group, Parts & Components
Department, YMG Kofu Factory

The basis of manufacturing is pure and simple craftsmanship. This is what made the Yokogawa Group. If the basics are ingrained in you, you can apply the skills to each new environment or device, no matter how different. Learning the basics of manufacturing is still essential even after working 10 or 15 years.



An Environmental Management System (EMS) Designed for Global Deployment

The Yokogawa Group is deploying its EMS globally with the aim of building a sustainable society.

EMS Activities for Deployment Throughout the Group

The Yokogawa Group is promoting environmental management and environmental conservation activities based on the Principles of the Yokogawa Group Environmental Management Standards (see page 3). Based on a corporate philosophy that states “As a company, our goal is to contribute to society through broad-ranging activities in the areas of measurement, control, and information,” the Yokogawa Group is deploying an EMS globally because we consider the protection of the global environment to be a key management target. Also, each Group company, in accordance with the “Environmental Policy of the Yokogawa Group” and the “Voluntary Action Plan on the Environment of the Yokogawa Group” (both the medium-term and annual plans), has established environmental targets that are tailored to its business operations, environmental burdens, and the circumstance of the country in which it is based, and is thus independently engaged in environmental conservation activities.

Promotion of the EMS Integrated into Existing Businesses

In our system, the business headquarters and divisions provide EMS guidance and support to the consolidated operating companies of which they are in charge. By taking such measures that combine business and the EMS, each Group company is following themes that are closely integrated with its targeted business practices for the fiscal year.

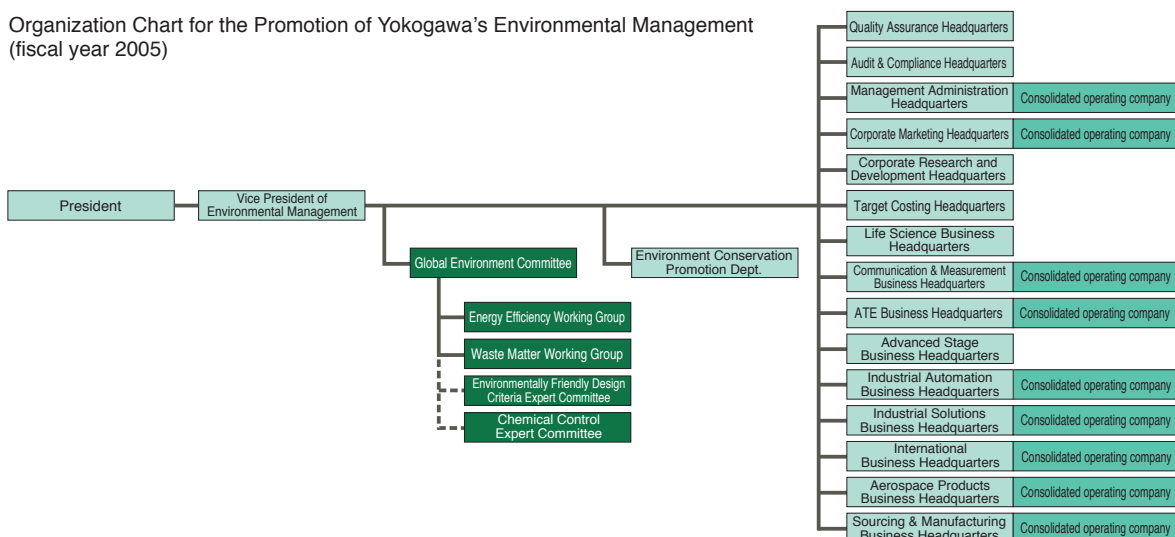
Implementation of Environmental Education

Yokogawa Electric is promoting environmental conservation activities based on ISO14001. In order to help make each employee more environmentally aware, we have introduced an environmental education program as part of employee training. Also, all employees are asked to carefully study our environmental reports.

In fiscal year 2005, in addition to the ordinary orientation program for new employees and basic environmental education, we created a new educational document titled “Understanding the Kyoto Protocol” and put it on our Japanese Website when the protocol took effect. We also conducted environmental education at each workplace. In addition, we offer training to raise the skills of in-house auditors working as lead auditors on in-house audits, and we also provide the specialized environmental education needed in each section or department. In order to help make each employee more environmentally aware and to revitalize our environment conservation activities, we issue a monthly Japanese “Earth Environment News.” The history of education and environmental activities for each employee is recorded with a score in an environmental protection activity pocketbook that we provide to employees.

We review our education programs from various points of view so as to raise employee awareness of the environment and improve not only our environmental conservation activities, but also environmental management, on a daily basis.

Organization Chart for the Promotion of Yokogawa’s Environmental Management (fiscal year 2005)



ISO14001 Certification

The establishment of an appropriate EMS is indispensable for the implementation of environmental management practices that are aimed at building a sustainable society. Our environmental activities are based on the Principles of the Yokogawa Group Environmental Management Standards (see page 3). Each of the Group companies is expected to establish, maintain, and improve an EMS that is tailored to its business operations and organization. We are also promoting ISO 14001 certification with nine ISO 14001-certified sites in Japan and nine outside Japan as of the end of March 2006. We will continue to globally deploy the EMS and to globally implement environmental management with the aim of building a sustainable society.

Environmental Auditing

(1) Internal Audits

The Yokogawa Group's internal audits consist of system, legal compliance, and performance-related audits. Internal audits were conducted at all sites at least once during the year. Although some minor inconsistencies and items to be watched were identified, these were quickly addressed and corrected.

(2) Periodic Inspections

New inspections were conducted by a certifying organization following the 2004 revision of ISO14001 standards. Yokogawa Electric's headquarters and factories, YMG, and other sites had completed adaptation to the 2004 standards and had maintained their registrations under the 2004 standards, as they were judged to be implementing effective EMSs.

ISO14001

As of the end of March 2006

| Factories | | Date Certified |
|--|-------------------|----------------|
| Yokogawa Electric Corporation Headquarters and Factories | | July 1997 |
| Yokogawa Electronics Manufacturing Corporation* | Komine Factory | July 1997 |
| | Kofu Factory | July 1997 |
| | Ome Factory | July 1997 |
| | Komagane Factory | July 1997 |
| | Uenohara Factory | July 1997 |
| Kokusai Chart Corporation | | January 1999 |
| Yokogawa Field Engineering Service Corporation | | February 2000 |
| Yokogawa Denshikiki Co., Ltd. | | November 2000 |
| Suzhou Yokogawa Meter Company | China (Suzhou) | May 1998 |
| Yokogawa Shanghai Instrumentation Co., Ltd. | China (Shanghai) | March 2000 |
| Yokogawa Sichuan Instrument Co., Ltd. | China (Chongqing) | December 2000 |
| Yokogawa Electric China Co., Ltd. | China (Suzhou) | May 2004 |
| P.T. Yokogawa Manufacturing Batam | Indonesia | April 2000 |
| Yokogawa Electric Asia Pte. Ltd. | Singapore | October 1998 |
| Yokogawa Engineering Asia Pte. Ltd. | Singapore | August 2001 |
| Yokogawa Electronics Manufacturing Korea Co., Ltd. | South Korea | December 2004 |
| Yokogawa Corporation of America | USA | June 2005 |

* The following sites have general certification: YMG Headquarters, YMG Komine Factory, YMG Kofu Factory, YMG Ome Factory, YMG Komagane Factory, and YMG Uenohara Factory.

Environmental Audit Inspection Items

| Internal Audit | | |
|------------------------|--|--|
| System audit | | Audit of organization/system, target management, education, operations management/corrections, and other data to check whether the system is functioning effectively |
| Legal compliance audit | | Audit of the operation and monitoring of regulated values (qualifications, notice submissions, and measurement data) and other data to check whether legal and other requirements are being followed |
| Performance audit | | Audit of targets and actual results, regulated values, and other data to check whether the self-determined operation items are being implemented properly |

Setting and Using Group-wide Indicators to Assess Overall Environmental Impact

The Yokogawa Group assesses and maintains an overview of the environmental impact of its business activities with the aim of building a sustainable society.

Understanding Environmental Impact as a Whole

The Group believes that assessing and managing an “eco-balance”¹ of the inputs and outputs in its business activities will help the Group effectively use resources, improve energy efficiency, contribute to global warming prevention, and improve the waste reclamation ratio, so as to build a sustainable society.

The figures below illustrate the eco-balance of the Group in fiscal year 2005.

Yokogawa’s Eco Point Environmental Burden Indicator

Since fiscal year 2000, the Yokogawa Group has been using the eco point (EP) indicator as a common numerical indicator for measuring environmental impact. Eco points are calculated by multiplying the eco factor² used by Switzerland’s Ministry of the Environment by the LCA³ inventory analysis⁴ result for each environmental load value. This method enables the Group to uniformly evaluate the effect on the environment. The greater the EP value, the greater the environmental impact.

The eco point score for fiscal year 2005 at 16 ISO14001-certified sites was 27,123 EP, representing an environmental impact reduction of 765 EP from the previous fiscal year.

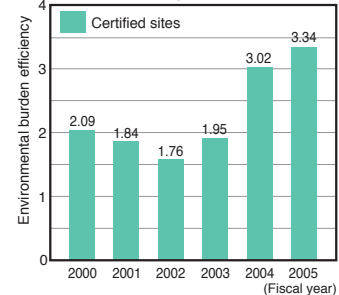
Environmental Management Indicator

The Yokogawa Group uses “environmental burden efficiency” as an indicator for expressing the progress of environmental management activities. The environmental burden efficiency indicator shows the efficiency of environmental management in generating economic value for a specific environmental impact, and is defined by the formula below.

For fiscal year 2005, the Group targeted and achieved a value that was 1.5 times the value for fiscal year 2000. We will set and work towards new targets for the next fiscal year.

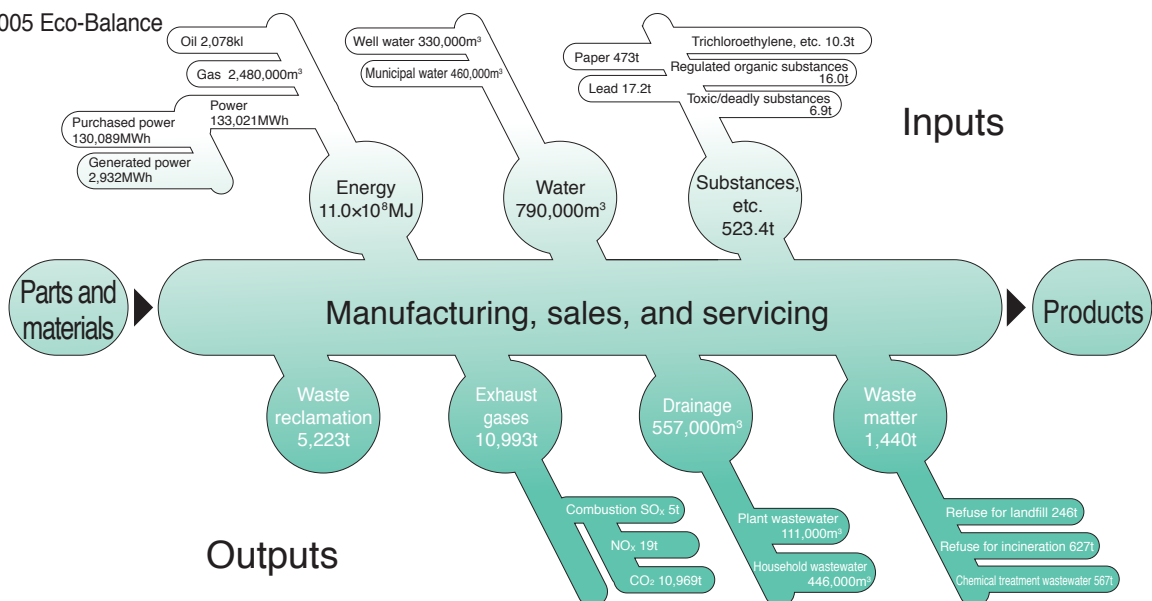
$$\text{Environmental burden efficiency} = \frac{\text{Gross profit on sales}}{\text{EP}}$$

Changes Over Time in Environmental Burden Efficiency



- *1 Eco-Balance The annual balance between energy and resource inputs (consumption) and outputs (emissions), excluding parts, materials and products
- *2 Eco factors Weighing factors established to evaluate the environmental impact of individual emitted substances determined through inventory analysis
- *3 Lifecycle assessment (LCA) An assessment that comprehensively evaluates the environmental impact of a specific product throughout its lifecycle, from material purchase, manufacture, and distribution, to its use and disposal
- *4 Inventory analysis A technique that uses LCA data to analyze levels of emissions into the atmosphere and hydrosphere (groundwater) from supplied power, natural gas, and chemicals as well as emitted substances and that also calculates emission amounts (inventory) by category (greenhouse gas, ozone-depleting potential substances, etc.)

Fiscal Year 2005 Eco-Balance



Applying Environmental Accounting to Realize Optimal Environmental Management

In fiscal year 2005, the Yokogawa Group applied environmental accounting to 16 sites.

Environmental Accounting for Fiscal Year 2005

The table below shows the environmental accounting of the Group for fiscal year 2005. Calculation criteria in environmental accounting are in compliance with the “Environmental Accounting Guidelines (Fiscal Year 2005 Version)” published by the Ministry of the Environment, Japan.

In fiscal year 2005, our environmental conservation figures in Japan were down as a whole due to the transfer of production to locations outside the country.

Environmental Conservation Costs (in millions of yen)

| Category | Item | Main Initiatives | Investment | Amount |
|---|--|--|------------|--------|
| (1) Costs for reducing environmental impact occurring within factories (areas of operation) | 1) Pollution prevention costs | Monitoring and measurement | 311 | 151 |
| | 2) Global environmental conservation costs | Energy savings | 281 | 87 |
| | 3) Resource recycling costs | Minimized generation of waste matter | 13 | 166 |
| (2) Costs for reducing environmental impact from procurement and logistics | | Green procurement | 0 | 9 |
| (3) Environmental conservation costs in EMS activities | | EMS updates, education | 0 | 251 |
| (4) Environmental conservation costs in R&D activities | | Development of environmentally friendly products | 0 | 13 |
| (5) Environmental conservation costs in community activities | | Environmental events | 0 | 24 |
| (6) Costs of addressing damage to the environment | | Soil recovery | 0 | 0 |
| Total | | | 605 | 701 |

Environmental Conservation Effects

| Category | Description of Effect (unit) | FY2004 | FY2005 | Effect |
|---------------------------|--|--------|--------|--------|
| Resource expenditure | Total amount of energy consumed (TJ) | 797 | 885 | -88 |
| | Total amount of water resources consumed (km ³) | 646 | 704 | -58 |
| Global warming prevention | CO ₂ emissions (kt) | 43 | 47 | -4 |
| | CO ₂ emissions on unit sales basis (t-CO ₂ /100 million yen) | 16 | 19 | -3 |
| Air pollution | NO _x emissions (t) | 38 | 41 | -3 |
| | SO _x emissions (t) | 38 | 43 | -5 |

Economic Effects of Environmental Conservation Measures –Intrinsic Effect– (in millions of yen)

| Description of Effect | Amount |
|--|--------|
| Reduction in expenditures due to recycling (sale of valuables, etc.) | 32 |
| Reduction in expenditures due to energy savings (power, etc.) | 34 |
| Reduction in expenditures due to resource savings (reduced use of paper and water, etc.) | 60 |
| Total | 126 |

Capital Expenditures and R&D Costs (in millions of yen)

| Item | Description | Amount |
|---|---|--------|
| Total capital expenditures for the term | All capital expenditures including environmental expenditures | 49,379 |
| Total R&D costs for the term | All R&D costs including environmental expenditures | 30,861 |

Sales of Environmental Business Products and Total Sales (in millions of yen)

| Item | Description | Amount |
|--|---|------------------|
| Sales of environmental business products | Sale of products and systems (for the term) that exclusively contribute to the reduction of social and environmental impact, including environmental business products (water purification, atmosphere protection, waste treatment, etc.) | 18,311 (7.6%) |
| Total sales for the term | Grand total | 240,652 |

Data was taken from ISO14001-certified sites, excluding Yokogawa Field Engineering Service Corporation and Yokogawa Electronics Manufacturing Korea Co., Ltd. (see page 21) during the period from April 1, 2005 to March 31, 2006.

Overview of Environmental Activities in Fiscal Year 2005

As a responsible corporate citizen, the Yokogawa Group is engaged in global environmental conservation activities and social activities, taking the business operations of each Group company and the regional character of its operations into consideration, and being done in accordance with the Principles of the Yokogawa Group Environmental Management Standards (see page 3).

Environmental Policy of the Yokogawa Group

| | |
|---|---|
| EMS implementation, maintenance, and improvement | Establish an EMS to promote and continually improve our environmental conservation activities. In order to achieve this, it is necessary to accurately understand the impact of our business activities on the environment, establish environmental targets that are technically and economically feasible, and work to achieve these targets while conducting environmental audits to maintain and improve the system. |
| Implementation of environmental education | Educate all employees so that they understand the environmental policy, are more aware of the need to protect the environment, and take the initiative in corporate and civil environmental conservation activities. |
| Legal compliance | Comply with all legislation, regulations, agreements, and industrial guidelines pertaining to the environment, and strive to protect the global environment. |
| Promotion of recycling-based management | Strive in all corporate activities to use resources and energy efficiently, reduce waste, and promote reuse and recycling, with the aim of achieving zero emissions. |
| Reduction of environmental pollutants | Through the adoption of alternative technologies wherever possible, reduce the use of toxic substances or any other substance that can adversely affect the environment by, for example, contributing to global warming and damaging the ozone layer. |
| Development of environmentally friendly products | Develop products that have a low environmental impact throughout their lifecycle, from materials procurement to manufacturing, distribution, usage, and disposal. |
| Provision of environmental solutions | Help protect the global environment by supplying value-added products and services, based on our measurement, control, and information processing technologies. |
| Contribution to society by protecting the environment | Participate in regional environmental conservation activities, support employees who initiate such activities, and strive to maintain harmony with local communities as a responsible corporate citizen. |
| Disclosure of environmental conservation information | Disclose the Environmental Policy and information on the Group's global environmental conservation activities to broaden communications with communities. |

In fiscal year 2005, the Yokogawa Group reviewed its activities from the environmental and business perspectives and strove to achieve targets that were closely integrated with our business practices.

We successfully complied with the Waste Electrical and Electronic Equipment (WEEE) Directive and the Restriction of Hazardous Substances in Electrical and Electronic Equipment (RoHS) Directive, both of which were issued by the EU, with our products and on our production lines. Also, we promoted

the sale of environmental solutions in Japan such as the Enemap Energy Management Package and InfoEnergy Energy Conservation Support System, both of which were introduced in the Environmental Management Report 2005.

Although there still are some measures yet to be achieved, it is our intention to further enhance our environmental activities, especially in areas that are closely integrated with our business practices.

| | Fiscal Year 2005 (main sites) | | | Ref. Page(s) |
|--|--|--|---|--|
| | Target/Goal | Results | Self Evaluation | |
| | Confirm and achieve environmental conservation action targets that are closely integrated with our business practices. | <ul style="list-style-type: none"> 59 themes closely integrated with business operations attained Semi-annual internal audits and effective environmental management system confirmed to be in place | <ul style="list-style-type: none"> ○ ○ | <ul style="list-style-type: none"> 20 21 |
| | Provide all employees with basic environmental education that can be applied in activities that they undertake under their own initiative. | 100% achieved | ○ | 20 |
| | Provide specialized environmental education to those who are engaged in business activities that have a particularly significant impact on the environment. | 100% achieved | ○ | |
| | <ul style="list-style-type: none"> Comply with all legislation, regulations, agreements, and industrial guidelines (company headquarters and factories). Improve the ranking of nine items in the Voluntary Control Limits (YMG). | <ul style="list-style-type: none"> Drainage water, exhaust gas, and noise/vibration measurements conducted and confirmed to be below Voluntary Control Limits Ranking of 15 items in the voluntary control limits improved | <ul style="list-style-type: none"> ○ ○ | 32 |
| | Develop a soil management method that meets the Group soil management criteria (YMG). | Included in budget planning | ○ | 32 |
| | Reduce CO ₂ emissions <ul style="list-style-type: none"> by 31.7% on a floor-space basis, compared to fiscal year 1990 (company headquarters and factories). to 29.2t-CO₂/100 million yen in sales (YMG). | <ul style="list-style-type: none"> 26.8% reduction 33.6 t-CO₂/100 million yen | <ul style="list-style-type: none"> × × | 31 |
| | Reduce total waste matter <ul style="list-style-type: none"> by 6% compared to fiscal year 2003 (company headquarters and factories). to 4.84 t/100 million yen in sales (YMG). | <ul style="list-style-type: none"> 6.9% reduction. 5.79 t/100 million yen | <ul style="list-style-type: none"> ○ × | 34 |
| | Deploy and improve green production lines (YMG). | 15 lines improved, compared to the targeted 8 or more lines | ○ | 30 |
| | Build production lines for lead-free solder products and hexavalent chromium-free surface treatment. | Achieved | ○ | 33 |
| | Build production lines for cyanogen-free plating. | Achieved | ○ | |
| | Reduce toluene and xylene (YMG). | 4,284 kg reduction | ○ | 32 |
| | Comply with the WEEE Directive and the RoHS Directive (company headquarters and factories). <ul style="list-style-type: none"> Establish design standard (DS) guidelines. Promote the use of substitute parts and materials that do not contain the six hazardous substances covered in the RoHS Directive. Develop and implement a plan to comply with the RoHS Directive. | <ul style="list-style-type: none"> Design standards developed or revised for 18 models Evaluation to be continued, tertiary investigation completed Prepared for 9 models | <ul style="list-style-type: none"> ○ △ ○ | <ul style="list-style-type: none"> 26 33 33 |
| | Reduce CO ₂ emissions in developed products by 25% (company headquarters and factories). | Completed for 7 models | ○ | 27 |
| | Promote products and solutions that protect the environment (company headquarters and factories). | Held exhibitions, seminars, and other events | ○ | 28-29 |
| | Participate in nature conservation and community and regional conservation activities. | Participated in regional cleaning activities | ○ | 14 |
| | Promote information disclosure and broaden efforts to communicate with local communities (company headquarters and factories). | Published "Environmental Management Report" in June | ○ | 35 |
| | Establish environment-related external Website (YMG). | Established in November: http://www.yokogawa.com/jp-ymg/corp/eco/eco-info.htm | ○ | 35 |

Formulating Proprietary Design Rules for Creation of Environmentally Friendly Products

The Yokogawa Group has established design guidelines and assessment standards for long-term use, energy conservation, and other parameters to promote the production of environmentally friendly products.

Guidelines for Environmentally Friendly Design

The Yokogawa Group is developing products based on the guidelines and standards it has established for the development of environmentally friendly products.

(1) Environmental Assessment Standards for Product Design

We have established assessment standards in eight areas: ease of recycling and treatment, resource conservation, energy conservation, long-term usability, ease of collection and transport, safety and environmental protectiveness, information disclosure, and packaging. These standards are used in conducting assessments during each inspection (initial design, intermediate design, and final design).

(2) Lifecycle Assessment (LCA) Standards

These standards are used for preliminary assessment of energy use, CO₂ emissions, NO_x emissions, SO_x emissions, and the like throughout the lifecycle of a product. These standards are used in conducting assessments during each inspection (initial design, intermediate design, and final design).

(3) Environmentally Friendly Product Design Guidelines

These guidelines establish design, machining, and assembly methods that incorporate long-life design, energy conservation design, resource conservation design, materials and parts selection guidelines, and the recycling and disposal of products.

(4) Standards on Toxic Substances in Products

These standards guide the selection of environmentally friendly parts and materials in the design stage. Currently, efforts are being made to eliminate or reduce substances from a total of 44 substance groups: 15 prohibited substance groups and 14 voluntarily controlled substance groups specified in the Green Procurement Study Standardization Guidelines, as well as substances in 15 voluntarily controlled substance groups chosen by the Group.

(5) Recycled Product Design Standards

These standards encourage the three Rs, meaning the reduction of waste and the reuse and recycling of used products.

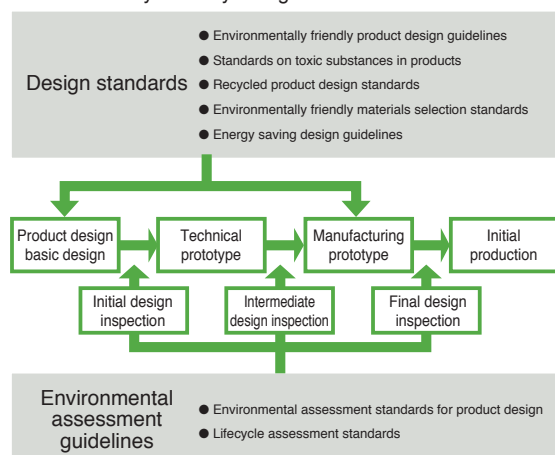
(6) Environmentally Friendly Material Selection Standards

These standards state that the use of halogen-based flame retardants is to be avoided. The standardized specifications of materials state that the use of structural steel plates containing hexavalent chromium is to be avoided and assign chrome-free steel plates as a substitute.

(7) Energy Saving Design Guidelines

These guidelines state that energy is to be conserved in the product use and manufacturing stages. They introduce energy conservation design technologies for products and for manufacturing.

Environmentally Friendly Design and Assessment Standards



Environmental Assessment Standards for Product Design

| | |
|---------------------------------|--|
| (1) When | Initial design inspection/intermediate design inspection/final design inspection |
| (2) Assessment items | Twenty-nine items including ease of recycling and treatment, resource conservation, energy conservation, long-term usability, ease of collection and transport, safety and environmental protectiveness, information disclosure, and packaging |
| (3) Evaluation criteria | Score is 0 points if legal regulations are not satisfied, 4 points if legal regulations are satisfied and an improvement of 30% or more is achieved, 3 points for an improvement of 15% or more, 2 points for an improvement of 5% or more, and 1 point for an improvement of less than 5%. |
| (4) Pass/fail judgment criteria | In order to pass, there must be no assessment items with a score of 0, and the total score must be greater than that of the old model. A "failed" judgment is given if any of the assessment items has a score of 0, or if the total score is the same as or lower than that of the old model. The improvement guidelines target an improvement of 25% or more, and more than anything seek to incorporate environmental-burden reduction into design. |

Development of Environmentally Friendly Products That Provide Better Functionality/Performance and Are Less Harmful to the Environment, in Accordance with Proprietary Technology and Standards

The Group has introduced a system of self-declared environmental labels (Type II), a first in the measuring instruments industry. Only products that demonstrate outstanding environmental performance may display this label.

Environmental Labels

In 1999, Yokogawa became the first company in the measuring instruments industry (in Japan) to introduce a self-declared environmental label (Type II), as specified in ISO 14021. The environmental label was designed based on the environmentally friendly design and assessment standards presented on page 26. It is used to mark products that are more environmentally friendly than older or similar products, and contribute to our customers' global environmental protection efforts.

By the end of fiscal year 2005, Yokogawa had introduced 15 products with environmental labels.

Creation of Environmentally Friendly Products

The TB700 series of turbidimeters, developed by the Group in fiscal year 2005, detect the turbidity of water using light. They meet the need for more compact and precise models that can be installed in any available space for use in water quality control—which is closely associated with environmental conservation. They are used for the detection and control of infectious microorganisms in water purification plants, drinking water, sewage water, and settling/leaching ponds, as well as to detect the amount of matter suspended in industrial wastewater.

Some of the Products with Environment Friendly Label



| Test & measurement and communications measurement instruments | Small-scale instrumentation equipment |
|--|--|
|  <p>DL9000 series Digital Oscilloscopes (Photo: DL9240L)</p> |  <p>DX1000/DX2000 Data Acquisition and Display Stations</p> |
|  <p>DL1640/DL1640L Digital Oscilloscopes</p> |  <p>CX1000/CX2000 Control and Measurement Stations</p> |
|  <p>WT3000 Precision Power Analyzer</p> |  <p>MX100 PC-Based Data Acquisition Unit</p> |

INTERVIEW

A New Generation of Accurate and Compact Measurement Turbidimeters

TB700G Transmitted and Scattered Light Turbidity Meter

TB700H High-sensitivity Transmitted and Scattered Light Turbidity Meter



The models in the TB700 series are 41% smaller and 47% lighter than previous models. They have a digital display unit for displaying measurements, have an automatic cleaning feature, and accommodate a much wider range of measurement conditions. With this series' expanded measurement range and integration of features from previous models, users need not to install as many units and maintenance time and cost are reduced. Also, we have succeeded in reducing the turbidimeter production cost through our energy saving, resource saving, and labor saving efforts. We improved maintainability by increasing the lamp life of the light source. Turbidimeters



Masashi Takeishi

Environmental & Analytical Products Development and Engineering Department, Control Products Business Division, Industrial Automation Business Headquarters

are used in the provision of safe water, and helps lessen the burden that the discharge of wastewater has on the environment. As they are expected to remain in service for five to ten years, we have designed them to provide stable measurements over long periods of time. I hope we can someday develop an analyzer that can measure turbidity without even touching the water.

Yokogawa Expertise Utilized in Cutting-Edge Sewage Plant That Combines Ozone Treatment with Wind Power Generation

The Yokogawa measurement and control technology introduced at the Osuga Purification Plant supports high-tech environmental measures such as ozone treatment and wind power generation that does not produce CO₂.

Sewage Purification System Similar to the Human Body's Nervous and Circulatory Systems

The Osuga Purification Plant is a public facility for sewage treatment that opened in March 2005 in Osuga Town (now part of Kakegawa City), Shizuoka Prefecture. Yokogawa Electric took charge of installing all electrical facilities for this project and later received a letter of appreciation from the town for its contribution in the project.

The electrical installation work in plants such as sewage facilities has a consistent workflow that includes the implementation of system design, manufacture of instruments, installation, and the final launch.

For the Osuga Purification Plant, Yokogawa Electric installed the electrical power input and distribution equipment, and measuring instruments as well as the computers and control boards that control this equipment. In a way, this system is comparable to the human body's circulation and nervous systems, which move blood and collect, transfer, and process information.

Responding to the Need for High-Level Technology

The project adopted a high-tech ozone water treatment method that produces no sludge and is odor free. In addition, a 660 kW wind power generator was installed to provide a supplemental source of electricity for running the plant.

Careful attention to the surrounding environment was necessary because the plant was located in a scenic area on the coast of the Sea of Enshu. Because the ozone treatment method requires a significant amount of electricity, a wind power generator was introduced to supplement the electricity supply. Never before had a sewage plant in Japan tried this solution. There were a number of challenging tasks in developing these new technologies, which included grid connection technology for balancing the electricity in the commercial primary power system, a backup power system, and safety equipment to stabilize the power voltage and prevent the transmission of electricity into the commercial power grid in the event of a power outage.

Yokogawa Electric is devoted to the development of water purification systems for both drinking water and sewage treatment, and to keeping the water clean in rivers and lakes, and has a strong sense of mission to hand down a rich natural environment to the next generation.

INTERVIEW

Pursuing the Realization of a Better Environment Through High Level Technology



The Osuga Purification Plant and electrical facilities installed by Yokogawa Electric



Shuichi Sekiya
Higashi-Nihon System Engineering Department,
Environmental Systems Sales Division, Industrial Solutions
Business Headquarters

When I was a child, it was normal for children to swim in the nearby rivers. These days, people don't pay much attention to river water quality — even when the river in their own neighborhood is dirty. I feel a strong responsibility for restoring our water environment and passing this on to the next generation. My job is technically demanding, but I am rewarded by seeing clean water flowing from plants, and know this is done through the support and guidance of many people.

Supplying High-Concentration Oxygenated Water Has a Significant Effect on Improving Water Quality in Reservoirs and Lakes

The Yokogawa Group's AQUONE system supplies a stream of high-concentration oxygenated water which reduces the foul smelling and stagnant hypoxic layers that are a burden to lake and reservoir water purification systems.

New Technology that Improves Water Quality in Reservoirs and Lakes

In water reservoirs and lakes, where the same water stays in one place, organic matter tends to accumulate in the low-temperature lower layer, causing a hypoxic (oxygen-deficient) layer. Because this creates a reductive effect, elements such as phosphorus, iron, manganese, and arsenic are ionized and eluted into the water, generating sulfured hydrogen, ammonia, and methane. This reduces water quality and produces a bad smell. Aeration, a common method for directly injecting oxygen into the water, often stirs up sludge and other sediments, increasing the turbidity. There may also be an increase of phytoplankton as nutritive salts approach the water surface and receive more sunlight. So we have developed a system that directly supplies high-concentration oxygenated water to this oxygen-depleted bottom layer.

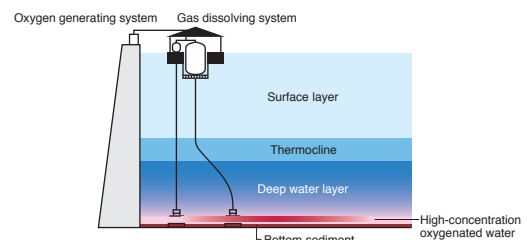
Countering Hypoxic Layers with Oxygenated Water

AQUONE, the Yokogawa Group's gas dissolving system, improves the reductive condition by dissolving oxygen into oxygen-depleted water that is pumped up from the bottom layers. The oxygenated water is then pumped back to the bottom, preventing reabsorption and depositing the eluted

ions. Also, this system can prevent bad odors by suppressing the generation of sulfured hydrogen and ammonia. The high-concentration oxygenated water spreads at the bottom like a carpet and does not stir up the sludge.

Usually, only 9–12 milligrams of oxygen can dissolve into each liter of water, but AQUONE can increase this to 50–70 milligrams by doubling the pressure. Currently, the system is installed at three locations, including a reservoir in the Tohoku area, and is achieving satisfactory results. We are also conducting experiments to utilize the system for improving the quality of discharged sewage water.

By acting as a water purifier and countermeasure to oxygen-depleted bottom layers, this technology is expected to improve water quality, not only in reservoirs and sewage systems but also in lakes and in the downstream sections of rivers.



Mechanism of water purification using AQUONE

INTERVIEW

The Idea of Supplying Oxygen-Dissolved Water Without Disturbing the Water

AQUONE Gas Dissolving System



Installation of the system at the Kamafusa Dam Reservoir



Katsutomu Tanaka

Manager of the Tokyo Sales Department, Environmental System Sales Division, Industrial Solutions Business Headquarters

It is natural for the water in reservoirs and lakes to become eutrophic over time, but the problem is that this can be fueled by human activities. A holistic approach is necessary in taking environmental measures. A combination of several of these measures, including that for the problem of flow-in, is indispensable in improving water quality. AQUONE is one such approach.

Innovation and Utilization of Idle Facilities Dramatically Reduces Consumption of Tap Water and Groundwater

Two green production line improvement activities reduced water consumption at the YMG Kofu Factory in fiscal year 2005.

Green Production Line Improvement Guidelines

The Green Production Line Improvement Guidelines established in 2002 promote improvements that will reduce the environmental impact of production lines. They are now being implemented as part of the Yokogawa Group's production site improvement activities, together with the New Yokogawa Productivity System (NYPS) that has been in place since 1981.

Handmade Equipment Uses Plastic Canteen to Stabilize Water Pressure

On the inspection line for environmental measuring instruments at the YMG Kofu Factory, turbidimeters are checked and calibrated using tap water.

Inspection of the TB400G Scattered-Light Turbidity Meter measures the turbidity of water in a measuring cell that is filled with the water to be measured. This is done by illuminating the surface of the water leaving the cell. At that time, we have to maintain the same water pressure and amount so that the surface does not undulate when the zero point is calibrated with tap water. Although there is a pressure pump installed to pump out the tap water, when other production lines start using tap water, the water pressure drops, activating the pressure pump and making the flow unstable. As a result, we tended to keep the water running for long periods of time and waited until the flow was stable, and sometimes even had to redo the inspection.

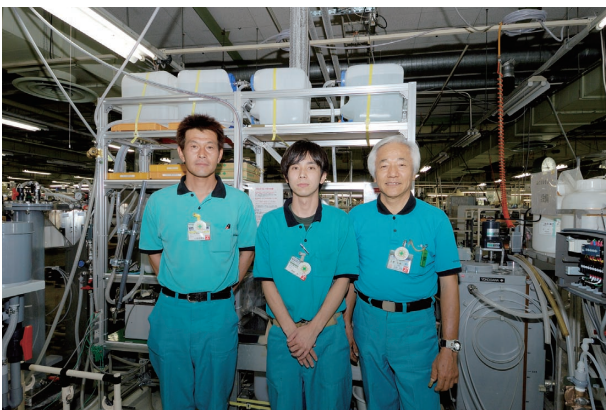
Therefore, an excessive amount of tap water was being wasted in the process and it used to take a long time to calibrate the zero point. However, enterprising employees at the factory

changed the system so that the water was supplied through a filter and then via a plastic canteen, thereby stabilizing the pressure. All the equipment was handmade and the canteen cost only about 5,000 yen. As a result, about 84 tons of water was saved in a year, the inspection workload was reduced significantly, and both the duration of the inspection and the consumption of electricity by the pressure pump were reduced.

Effective Use of Ice-storage Chiller Saves Groundwater

At the YMG Kofu Factory, groundwater is used both for sanitary and cooling purposes. We collected the groundwater in tanks to recycle it, but when its temperature increased we would have to discharge it into a river and bring in fresh, cool groundwater. But this increased groundwater consumption and thus conservation and effective usage of water became a challenge for us.

When the technical center located in the same compound was renovated, we moved an ice-storage chiller that was no longer in use to the groundwater pumping facility. We were then able to substantially reduce water consumption by making ice in the chiller late at night, when electricity is less expensive, and then use the ice to cool the water in the tanks during the daytime. At the same time, this enabled us to avoid the risk of running out of cooled water. It is estimated that this method will reduce water consumption by some 10–20,000 tons each year.



The individuals responsible for this reduction in water consumption by the inspection line: Yoshihiro Odagiri and Koichi Uchida of the Manufacturing Department 1, YMG Kofu Factory; and Mitsuo Yoshihara of the Manufacturing Process Design Kofu Department, Manufacturing Engineering Division, Sourcing & Manufacturing Business Headquarters



Ice-storage chiller (cooling device)

Reducing the Yokogawa Group's CO₂ Emissions

The Group is making efforts to prevent global warming through various initiatives that aim to achieve the goals of the Kyoto Protocol.

Realizing the Aims of the Kyoto Protocol

The industry is striving for the 6% reduction in emissions of CO₂ and other greenhouse gases from 1990 levels that Japan is obligated to achieve under the Kyoto Protocol, which came into force in 2005, by providing energy-saving products, increasing production efficiency, and installing energy-saving equipment.

The Yokogawa Group is also making a group-wide effort to achieve this goal by introducing ice-storage systems, photovoltaic power systems, and cogeneration systems, as well as by introducing inverters for lights and sensors that efficiently turn lights on and off when people enter and exit rooms. In offices, too, various energy-saving measures are being implemented: employees make a point of turning lights off during lunch breaks and turning personal computers off when they leave their desks. In fiscal year 2005, the Group took part in the Japanese government-led "Team Minus 6%" program and implemented such energy-saving measures as promotion of the "Cool Biz" and "Warm Biz" office clothing campaigns, and setting air conditioners to 28 °C during summer and 20 °C during winter.

Also, the Group indirectly contributed to the reduction of CO₂ emissions through its cooperation in a tree planting campaign that was initiated by Musashino City.

However, in fiscal year 2005, major Group sites were unable to achieve their goals due to an increase in production and the year's intense summer heat and severely cold winter. The Yokogawa Group's CO₂ emissions per basic unit was 14.3t-CO₂ per hundred million yen (total amount: 53,038 t-CO₂), a 39.1%

decrease compared to fiscal year 1990. In this fiscal year, the Group is determined to implement measures to achieve the goals at major sites.

The Yokogawa Group will continue its efforts to achieve the goals established in the Kyoto Protocol.

Reducing CO₂ Emissions in Logistics

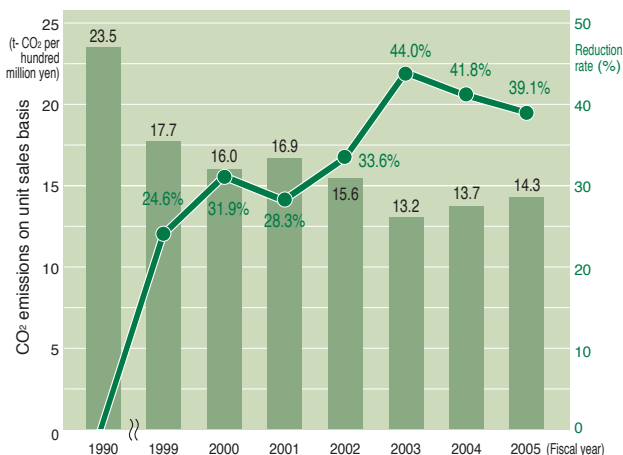
In efforts to reduce CO₂ emissions in logistics, the Group has shifted from wood to lightweight cardboard packaging materials in order to decrease shipment weight and get better vehicle mileage. Also, the Group is pursuing further reductions in CO₂ emissions by studying a shift to railway transport.

Reducing CO₂ Emissions Outside Japan

The Group companies outside Japan are also striving to reduce CO₂ emissions. Yokogawa Electric China Co., Ltd. in Suzhou, China, for example, reduced CO₂ emissions by 16% in fiscal year 2005 compared to the previous year. As a backdrop to this were measures implemented at the Yokogawa Electric Headquarters and factories, as well as at each of the YMG factories, such as the shortening of manufacturing time through improvements of production efficiency and quality, and the recycling of industrial water. Also there have been efforts by all company employees to save electricity by adjusting the temperature setting of air conditioners and so forth.

Also, as featured on pages 10 and 11 of this report, the Suzhou Yokogawa Meter Company in Suzhou, China, is working on a major tree planting project.

CO₂ Emissions on Unit Sales Basis and Reduction Rates (compared to fiscal year 1990)



An office worker in his "Cool Biz" clothing, with a short-sleeved shirt and no necktie. The air conditioners in the office are set at 28 °C during summer. A poster is displayed at the reception desk, asking for the understanding of customers in the Cool Biz campaign.



Reducing Contaminant Materials in Air and Water Through Our Technology, Standards, and Activities

The Yokogawa Group strives to protect the environment by reducing contaminant materials in the air, water, and soil. It does this by introducing alternative materials and by conducting various activities. The Yokogawa Electric headquarters and its factories have won high esteem for the long-term environmental conservation activities at their high-pressure gas facilities.

Yokogawa Wins an Award from the Tokyo Metropolitan Government

Safety management on a daily basis is indispensable to prevent gas leakages or other accidents involving the refrigeration units of air conditioners, in which high-pressure gas is used. At the 2005 High Pressure Gas Safety Meeting in Tokyo, Yokogawa Electric won a Tokyo Metropolitan Environmental Award for having operated high-pressure gas facilities at its headquarters and factories without accidents for many years.

The award winner is selected by judges from nominations of the High Pressure Gas Safety Institute of Tokyo to the Tokyo metropolitan government. All companies must meet the condition of not having had an accident during the past 10 years. There was a large file of application forms and other documents submitted to the government, with information on risk management, safety management, and global environmental conservation activities. Members at the Facilities Administration Group of the General Affairs Department have been minutely inspecting facilities everyday so as to prevent even the possibility of an accident, during their routine of daily checkups and regular maintenance. What has been important is the regular training which is designed to prevent them from becoming complacent. In addition to monthly meetings, the company holds a thorough seasonal checkup of items such as refrigeration equipment, inspecting it when the seasons change. On these occasions, we instruct people to check not only the numbers on the meters, but also to keep their eyes and ears alert to anything out of the ordinary.

Legal Compliance

The Yokogawa Group has continued to ensure that environmental laws, regulations, and agreements are thoroughly adhered to. Once again, we committed no violation in this regard in fiscal year 2005.

Reducing the Use of Toluene and Xylene

The YMG Kofu Factory started the use of low-toluene/low-xylene polyester paint and cleaning solutions in February 2005. In fiscal year 2005, we finished evaluation tests and switched to new paints for 10 of the 15 colored paints. For the five remaining colors, we plan to gradually switch to low-toluene/low-xylene polyester paint. By this means, we were able to reduce 3,668 kilograms of toluene and 268 kilograms of xylene in fiscal year 2005, compared to the previous year.

The YMG Komine Factory has also been pursuing similar measures and achieved reductions of 144 kilograms for toluene and 205 kilograms for xylene in the same year.

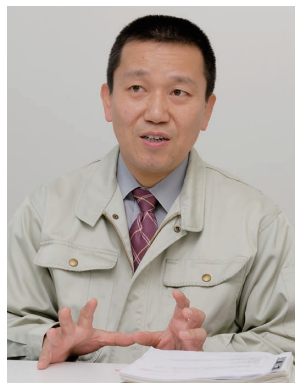
We are determined to continue this reduction of the use of toluene and xylene throughout other product lines.

Protecting the Water and Soil

The Yokogawa Group has been conducting soil and water studies at former production sites in accordance with proprietary control standards, since even before the Soil Contamination Control Law was enacted in Japan. The Group continues to monitor the YMG Moroyama Factory, where the cleaning of trichloroethylene-contaminated soil and water has been completed.

Teamwork Acclaimed

An award was given to the whole organization, including our client, for work that was done by us and our seniors the hard way. We are expected to carry out our jobs without any accidents. Safety is accomplished by patient daily efforts, based on day-to-day inspections that must not miss even a small risk. We continue to be committed to this.



Yoshinori Takano
General Affairs Department, Human Resources and General Affairs Division

Yokogawa Group Soil Studies

| Factories | Type of Study | Study Status |
|------------------------------------|--------------------------------|--|
| YMG Ashikaga Factory | Self-directed study | Within level allowed by standards |
| YMG Daian Factory | Self-directed study | Within level allowed by standards |
| YMG Sakaigawa Factory | Self-directed study | Within level allowed by standards |
| Yokogawa Electric Hachioji Factory | Self-directed study | Cleaning completed |
| YMG Koriyama Factory | Soil Contamination Control Law | Cleaning completed |
| YMG Haramachi Factory | Self-directed study | Cleaning completed |
| YMG Moroyama Factory | Self-directed study | Cleaning completed, being monitored |
| Ando Electric Kosai Site | Soil Contamination Control Law | Within level allowed by standards |
| YMG Matsukawa Factory | Soil Contamination Control Law | Cleaning completed |
| YMG Mie Factory | Soil Contamination Control Law | Scheduled to be cleaned after facilities are removed |

Controlling and Reducing Poisonous Chemical Substances Through Careful Management and Development of Alternative Processes

The Yokogawa Group is striving not only to manage chemical substances that are hazardous to the environment and human health but also to reduce them through the development of alternative processes and other measures.

Complying with EU Environmental Restrictions and Reducing Chemical Substances

The Restriction of Hazardous Substances in Electrical and Electronic Equipment Directive (RoHS) has recently come into effect. Although many of our products are exempt from the Directive, we consider it our mission to create environmentally friendly products in order to build a sustainable society.

In fiscal year 2005, the Group sought to improve or eliminate components to achieve compliance with the RoHS Directive, in cooperation with suppliers. In the area of production, the Group pursued the establishment of production lines for lead-free solder products, and hexavalent chromium-free and cyanogen-free surface treatment at the YMG Kofu Factory. In the area of design, the Group is striving to develop products that do not contain the hazardous materials specified by the Directive.

While the revision of the Air Pollution Control Act has tightened restrictions on VOCs, the Yokogawa Group has also succeeded in reducing VOCs by using powder coatings and low toluene/low xylene paint, which we have promoted for some time now.

Substances Covered by PRTR

The following table shows the Yokogawa Group's usage amounts for substances designated for reporting by the PRTR law* (usage amounts of 1 ton or more per year).

*PRTR law: PRTR stands for Pollutant Release and Transfer Register. This Japanese law was established to prevent environmental pollution from chemical substances and to encourage self-directed improvements in chemical substance management by chemical substance-handling enterprises, through the disclosure of data concerning the emission of toxic chemical substances into the environment. Under the PRTR law, chemical substances are managed by society as a whole through the disclosure of emissions data and other information.

Fiscal Year 2005 PRTR Data

| Factories | Substances | Amount used (kg) | Amount emitted (kg) | | | | | Amount transferred (kg) | |
|----------------------|--|------------------|---------------------|--------------------|------|-----------|---------------|-------------------------|--|
| | | | Air | Public water areas | Soil | Landfills | Sewage system | Outside sites | |
| YMG Komine Factory | Xylene | 3,700 | 2,300 | 0 | 0 | 0 | 0 | 1,400 | |
| | Toluene | 2,110 | 1,300 | 0 | 0 | 0 | 0 | 810 | |
| | Cyanide | 1,200 | 0 | 0 | 0 | 0 | 0 | 1,200 | |
| YMG Kofu Factory | Xylene | 2,340 | 2,100 | 0 | 0 | 0 | 0 | 240 | |
| | Toluene | 2,020 | 1,800 | 0 | 0 | 0 | 0 | 220 | |
| | 2-Ethoxyethanol acetate | 922 | 830 | 0 | 0 | 0 | 0 | 92 | |
| YMG Ome Factory | Water-soluble copper salts | 55,510 | 0 | 0 | 0 | 0 | 19 | 5,200 | |
| YMG Komagane Factory | Hydrazine | 1,089 | 79 | 700 | 0 | 0 | 0 | 310 | |
| | Hydrogen fluoride and its water-soluble copper salts | 1,050 | 0 | 140 | 0 | 0 | 0 | 910 | |

YMG Ome Factory Introduces a Formalin-Free Production Line, Reducing the Use of Formalin to One Twenty-Fifth of Previous Levels

To produce multilayer printed circuit boards, a black oxide and reduction process is used to attain better adhesion between the layers. We have been taking environmental and safety measures to eliminate the traditionally used poisonous chemical, formalin (formaldehyde).

The Sourcing & Manufacturing Business Headquarters of Yokogawa Electric and the Manufacturing Department 1 of the YMG Ome Factory jointly overhauled the production process of multilayer printed circuit boards at the factory and studied ways to improve the process and treatment method in order to abolish the usage of formalin. Specifically, they aimed to introduce the Brown Treatment Method to treat the surface of the copper by etching and attain better adhesion between the layers. To introduce this method, it was necessary to upgrade the production facilities, which required capital investment. However, we decided to introduce the method, judging that we would be able to recoup the initial investment through productivity improvements. Production under the new treatment method started in January 2005.

The introduction of the Brown Treatment Method not only made the production process formalin-free but also chlorine-free. Further, it reduced production time, saved water, and reduced processing temperatures, as well as improved the adhesion between layers and contributed to safety. Consequently, this reduced the annual use of formalin in the entire factory to one twenty-fifth of previous levels, that is, from an annual total of 11.5 tons to just 460 kilograms. The initial investment, an early concern, is expected to be recovered in about two years.

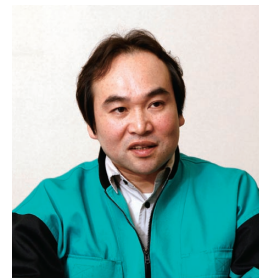
Dream-Come-True in the Introduction of Formalin-Free Production



Shinichiro Shoji

Manufacturing Common Technology Engineering Department, Manufacturing Engineering Division, Sourcing & Manufacturing Business Headquarters

Initially, we studied four types of countermeasures and evaluated their advantages and disadvantages, resulting in our selection of the Brown Treatment Method. While reducing the use of chlorine compounds, water, and energy, this method substantially cut production time, and costs per square meter of board were reduced to one-fourth.



Akihiko Takeda

Manufacturing Department 1, YMG Ome Factory

We are always thinking about how to improve our processing, contriving new ways to reduce the amount of dangerous substances, and examining the possibility of switching to substances that are less harmful.

Promoting Zero Emission Activities in All Business Areas

Everyone in the Yokogawa Group is committed to achieving the goal of zero emissions.

The Challenge of Zero Emissions

The processes for manufacturing measuring and control instruments consist of numerous steps, and consume a variety of raw materials and forms of energy. For this reason, environmental problems such as air, water, soil pollution, and waste treatment cannot be avoided. Through all of its operations, the Group strives to promote recycling and effectively use resources, and to achieve the goal of zero emissions.

We define zero emissions as reclaiming and reusing 99% or more of the total amount of waste generated, and this is the goal that the Group is continually working towards attaining.

In fiscal year 2005, the YMG Kofu and YMG Komagane factories again achieved the goal of zero emissions, bringing the number of successful Yokogawa Group sites to five.

As for the polychlorinated biphenyl (PCB) equipment that has been temporarily stored, the Group has made a detoxification plan and pre-registered the equipment with the Japan Environmental Safety Corporation (JESCO) before beginning the detoxification process.

Results for Fiscal Year 2005

The Yokogawa Group got down to the task of achieving the goals set for reducing the amount of waste. As a result, the waste emission reduction rate on a unit sales basis was 0.19 tons per hundred million yen (total amount of waste: 691 tons), a reduction of 88.9% compared to fiscal year 1995.

Of the total amount of waste generated, the rate of waste recycled was 89% for the entire Yokogawa Group, and 95.8% at its major factories.

Following on from fiscal year 2004, specific initiatives taken at the Yokogawa Electric Headquarters and at factories included

reusing unwanted office furniture, returning unsolicited direct mail back to the sender, and returning packing materials once a purchased product is delivered. We pursued these initiatives even more thoroughly than before. As a result, the Group was able to achieve a 48 ton reduction for these materials. A total of 1,215 pieces (34 tons) of office furniture were reused, which was 1.4 times the amount recycled in fiscal year 2004. One ton of direct mail was returned, 4.8 times that in fiscal year 2004. And 13 tons of packing materials were returned, or 3.2 times that in fiscal year 2004.

Also, the YMG Kofu Factory, as part of its green production line improvement activities, started recycling and reducing the quantity of cutting tools. Having traders regularly collect worn-out blades and delivery cases resulted in a reduction of 1.2 tons of waste.

Improving Logistics

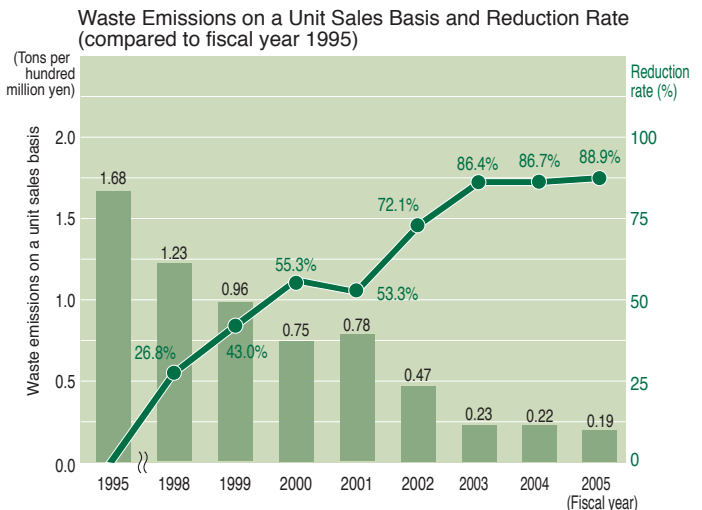
The Yokogawa Group, as part of its effort to reduce packaging materials, has introduced simple, environmentally friendly packaging, such as film-cushion packaging, whereby products are protected with film-attached cardboard frames, and simple packaging, whereby film-wrapped products are protected individually with reinforced cardboard. This resulted in a reduction in the use of foam polystyrene and wood-based materials. Also, the Yokogawa Group is making arrangements with its suppliers to use reusable plastic containers and reusable containers with cushion materials.

In fiscal year 2005, we introduced environmentally friendly packaging for 20 models of product series such as the DL9000 and the µR20000. We started using reusable containers for two customers, bringing the total number to 12 companies.

Yokogawa Group's Definition of Zero Emissions

| Category | Process | Legal (Japan) | Types of Waste | |
|---------------------------------|-----------------------------|--|--|---|
| Total amount of waste generated | Recycling | General refuse | Paper, packing materials, cardboard, etc. | |
| | | Industrial waste | Household garbage, packing materials, wood cuttings | |
| | | Specialty controlled refuse | Metals | |
| | Amount of waste recycled | Chemical treatment fluid waste (volume reduction) | Industrial waste/ specialty controlled refuse | Manufacturing debris (metal, paper, plastic, solvents, oil, etc.) |
| | | Refuse for incineration | General refuse | Glass, concrete and other incombustibles |
| | | | Specialty controlled refuse | Toxic substances (mercury, solder debris) |
| Amount of waste emissions | Refuse for landfills | Industrial waste/ specialty controlled refuse | Wastewater detoxified by subcontractors (except for detoxification at Yokogawa facilities) | |
| | | General refuse | Household garbage (cigarette buttes, food waste, mixed papers, fallen leaves, etc.) | |
| | Specialty controlled refuse | Packing materials, debris containing wood cuttings, etc. | | |
| Total amount of waste generated | Amount of waste recycled | Industrial waste/ specialty controlled refuse | Fats and fatty oils (waste oil, paint, ink), infectious refuse | |
| | | General refuse | Debris containing metal, plastic, etc. | |
| | | Specialty controlled refuse | Waste asbestos | |

- The remaining 1% is waste that would pose a significant burden on the environment if recycled, or would be difficult to recycle. Examples include infectious refuse, refuse that is difficult to sanitize, asbestos, and fluorescent lights.
- Waste that can be turned into fuel, used to generate power, or recycled as incineration ash is considered a part of recycled waste.
- * Temporarily stored polychlorinated biphenyl (PCB) equipment is counted as part of waste emissions when it is detoxified.



A Wide Range of Outreach Initiatives Intended for Environmental Communication

The Yokogawa Group promotes various communication activities, including the publication of environmental reports. It also gathers and feeds back information to its own activities.

Environmental Reporting Activities

Since 1999, our annual environmental report has served as an important communications tool and the Group has prepared and distributed it to customers, employees, and other stakeholders. We distributed the 2005 edition to local community associations and elementary schools, as well as to about 200 libraries across in Japan on an experimental basis, in an effort to make the report available to as many people as possible.

Following on from this, in the 2006 edition we dealt with the environmental and social aspects of the activities that the Group is committed to. In a move to place more importance on corporate social responsibility (CSR), we also provided pages relating to our community and customer relations.

In addition to the printed edition, we publish information on our environmental activities on the Internet, with a special “Environmental Management” area of our Web site dedicated to explaining the Group’s environmental protection initiatives. The English version of the report is available on our global Web site in PDF format—there is no printed version.

Some of our subsidiaries outside Japan and the YMG Kofu Factory have published their own environmental reports as part of their efforts to maintain good communications with their local communities. Also, YMG has established its own Web pages on the environment in order to promote communications with the public.

Web sites for our environmental conservation activities:
<http://www.yokogawa.co.jp/eco/toppage-jp.htm> (Japanese)
<http://www.yokogawa.com/eco/eco-toppage-en.htm> (English)
<http://www.yokogawa.com/jp-ymg/corp/eco/eco-info.htm> (Japanese)

Response to Our Environmental Management Report 2005

The Yokogawa Group received many valuable responses to the 2005 edition questionnaires that were circulated internally and externally. The average ratings from one to five are shown below.

| | 2003 | 2004 | 2005 |
|--|------|------|------|
| ○ Was this report easy to understand? | 3.8 | 3.8 | 3.9 |
| ○ Did this report contain enough detail on what you wanted to know? | 3.9 | 3.9 | 3.8 |
| ○ How do you feel about the Yokogawa Group’s environmental conservation initiatives? | 4.2 | 4.3 | 4.3 |
| ○ What is your overall impression of the report? | 3.9 | 4.0 | 4.0 |

The following shows the four most popular comments:

- The information is well presented and easy-to-read.
- It would be better if it also contained information other than on the environment.
- I would like to see more photographs and illustrations.
- Some parts are too technical to understand.

We have taken these comments into account when writing the 2006 edition, and will continue to work on improving our reports.

Other Communication Activities

We exhibited environmentally friendly products and environmental solutions at trade shows such as SEMICON JAPAN 2005, the Measurement and Control Show 2005 TOKYO, and the Yokogawa Group Technology Innovation Fair to improve customer awareness of our products and services. In addition, we were actively involved in many outreach activities, including the Environmental Citizen Meetings of Musashino City, the Environment Green Committee of the Japan Electric Measuring Instruments Manufacturers’ Association (JEMIMA), and the Environment and Safety Committee of the Japan Electronics and Information Technology Industries Association (JEITA).

Editor’s Note

From this year, we changed the title of this report to the “Yokogawa Group Sustainability Report” and included more information relating to our community and customer relations, with increased emphasis on corporate social responsibility.

Also, in the feature articles in this report, we included extensive coverage of our environmental control systems, environmental conservation activities, and social contribution activities at our business bases in China. Thanks to the cooperation from each base in China, we could realize global reporting for the first time.

We are determined to further expand our reporting of the Yokogawa Group’s efforts, covering many different aspects. We will also continue to work on improving our reports—to make them easier to read and understand—taking comments from various stakeholders into consideration.

We look forward to receiving candid opinions and comments from readers of this report.



Cover Page of the Environmental Report Published by Yokogawa Electric China Co., Ltd.



Cover Page of the Environmental Report Published by Suzhou Yokogawa Meter Company



Cover Page of the Environmental Report Published by the YMG Kofu Factory



Yokogawa Electric Corporation

2-9-32 Nakacho, Musashino-shi, Tokyo 180-8750, Japan

Phone (direct line): +81-422-52-9561

Fax: +81-422-52-4197

<http://www.yokogawa.com/>

Let us know what you think of this publication

This report outlines the environmental management activities and social contributions of the Yokogawa Group during fiscal year 2005. We value open communications with our many stakeholders based on the information disclosed in this report.

The Yokogawa Group considers it important to strengthen ties with our stakeholders by disclosing the information in this report.

What do you think of the contents of this report, whose title has now been changed to the “Yokogawa Group Sustainability Report?”

Although we have tried to make the report easy to understand and give actual examples of our activities, there is always room for improvement.

To improve both the environmental management of the Yokogawa Group and this report, we welcome your opinions and feedback.

Please kindly complete the questions on the following page and return the form by post or fax.

Environmental Conservation Promotion Department
Yokogawa Electric Corporation
2-9-32 Nakacho, Musashino-shi, Tokyo 180-8750, Japan

Fax: +81-422-52-4197



Survey Questions on the Yokogawa Group Sustainability Report

Please mail to: Environmental Conservation Promotion Dept., Yokogawa Electric Corporation
2-9-32 Nakacho, Musashino-shi, Tokyo 180-8750, Japan
Fax to: +81-422-52-4197

Q1 What is your relationship with the Yokogawa Group? Please tick one box.

- Customer Stockholder Government body Investment/financial institution
 Environmental-related NGO/NPO Living near a Yokogawa Group site School/educational institution
 Student In charge of environmental management/CSR in a firm or other organization
 Employee of the Yokogawa Group Other ()

Q2 Was this report easy to understand?

5. Very easy 4. Moderately easy 3. Normal 2. Moderately difficult 1. Very difficult

Q3 How do you feel about the Yokogawa Group's measures and actions for protecting the environment?

5. Highly approve 4. Moderately approve 3. Neutral 2. Moderately disapprove 1. Highly disapprove

Q4 Did this report contain enough detail?

5. Far too much 4. Too much 3. Sufficient 2. Too little 1. Far too little

Q5 Which sections of the report did you find particularly interesting? (Please tick all boxes that apply.)

- Editorial Policy Corporate Profile Yokogawa Group's Social Responsibility
 Fiscal Year 2005 Special Report Community Relations Customer Relations Employee Relations
 Environmental Management Activities Overview of Environmental Impact Environmental Accounting
 Indicators and Achievements Development of Environmentally Friendly Products
 Environmental Solutions Green Production Lines Preventing Global Warming
 Protecting the Air, Water, and Soil Chemical Substances Control and Reduction Zero Emissions
 Environmental Communication Other ()

Q6 What was your general impression of this report?

5. Very good 4. Better than average 3. Average 2. Poor 1. Very poor

Q7 Your opinions and comments

Thank you. Please complete the following personal information (optional):

Your full name (Mr./Ms.): _____

Contact address: _____

Daytime phone number: _____ E-mail address: _____

* Your opinions may be reflected in the next issue of our report.
Please note that we take full responsibility for the appropriate management of any confidential personal and private information collected. In addition, the information you supply will not be used for any purpose other than answering your questions, nor will we disclose it to any third party.