Kurita Water Industries Ltd.
Business Process Reengineering Department, Corporate Planning Division
4-7, Nishi-Shinjuku 3-chome, Shinjuku-ku, Tokyo 160-8383, Japan
Tel.: 81 (3) 3347-3524
Fax: 81 (3) 3347-3099
URL: http://www.kurita.co.jp/english

Profile

The Kurita Group has long been contributing to the development of industry and society as the leading company in the field of water treatment. We are committed to achieving our corporate vision of becoming an "advanced water and environmental management company" based on the corporate philosophy, "Study the properties of water, master them, and we will create an environment in which nature and man are in harmony." In other words, we aim to expand our business area from just "water" to "water and the environment," and transform ourselves into a corporation that can provide customers with total solutions for issues related to water and the environment, instead of just delivering products such as water treatment chemicals and facilities. In the 21st century, known as the "century for water and the environment," the Kurita Group will make further contributions to the growth of customers and society at large as an "advanced water and environmental management company."

Corporate Data

Company name:	Kurita Water Industries Ltd.
Address:	4-7, Nishi-Shinjuku 3-chome, Shinjuku-ku, Tokyo 160-8383, Japan
Paid-in capital:	¥13,450,751,434
Representative (President):	Hiroshi Saito (since June 26, 2009)
Date of establishment:	July 13, 1949
Fiscal year-end:	March 31
Number of employees:	1,470 (parent company); 4,404 (on a consolidated basis)

(As of March 31, 2009)

The Kurita Group

The Kurita Group is composed of the parent company, Kurita Water Industries Ltd., its 42 subsidiaries and one affiliate. Together, they provide customers with a range of water treatment products and technologies, relevant maintenance services, and soil and groundwater remediation services.

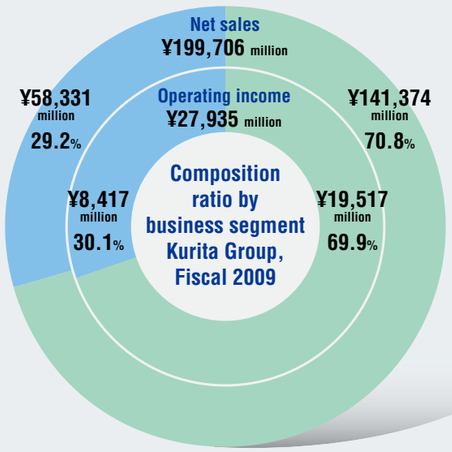
The Group's business is classified into the water treatment chemicals business and the water treatment facilities business. In the water treatment chemicals business, we manufacture and sell water treatment chemicals and provide relevant maintenance services.

The water treatment facilities business is subdivided into (1) the manufacture and sale of water treatment systems and facilities, and the maintenance services for them; (2) integrated soil remediation services that include surveys on soil and groundwater pollution and the purification of contaminated soil and groundwater; and (3) cleaning services, in which we physically and chemically clean customers' equipment and parts to maintain their productivity and quality. The major Kurita Group companies are shown below.

Major Kurita Group Companies

Water Treatment Chemicals Business

- ★ Kurita Buil-Tech Co., Ltd.
- ★ Kurita BMS Co., Ltd.
- ★ Kurita Chemicals Hokkaido Ltd.
- ★ Kurita Chemicals Tokyo Co., Ltd.
- ★ Kurita Chemicals Kanagawa Co., Ltd.
- ★ Kurita Chemicals Tokai Co., Ltd.
- ★ Kurita Chemicals Kansai Ltd.
- ★ Kurita Chemicals Hyogo Ltd.
- ★ Kurita Chemicals Sanyo Ltd.
- ★ Kurita Chemicals West Japan Ltd.
- ★ Kurita Chemicals Oita Ltd.
- ★ Kurita Chemicals Kumamoto Ltd.
- ★ Kurita Analysis Service Co., Ltd.
- Kurita do Brasil LTDA.
- Kurita (Singapore) Pte. Ltd.
- Kurita Water (Malaysia) Sdn. Bhd.
- Kurita Europe GmbH
- Kurita (Taiwan) Co., Ltd.
- Kurita-GK Chemical Co., Ltd.
- Kurita Water Industries (Dalian) Co., Ltd.
- P.T. Kurita Indonesia
- Hansu Ltd.



* Total operating income includes corporate items and eliminations.

Water Treatment Facilities Business

▶ Facilities and maintenance
- ★ Kuritaz Co., Ltd.
- ★ Kurita Meiki Ltd.
- ★ Kurita Creation Co., Ltd.
- Kuritec Europe GmbH
- Kurita America Inc.
- Kuritec Singapore Pte. Ltd.
- Kuritec (Shanghai) Co., Ltd.
- Hansu Technical Service Ltd.
- Kurita (Singapore) Pte. Ltd.
- Kurita Water Industries (Suzhou) Ltd.

▶ Soil and Groundwater remediation
- ★ Land Solution Inc.

▶ Cleaning
- ★ Kurita Engineering Co., Ltd.
- Miyoshi Industries Co., Ltd.
- ★ Kuritec Service Co., Ltd.
- San-ei Industries Co., Ltd.
- Nippon Fine Co., Ltd.
- Sun Kako Co., Ltd.
- Aoi Industries Co., Ltd.

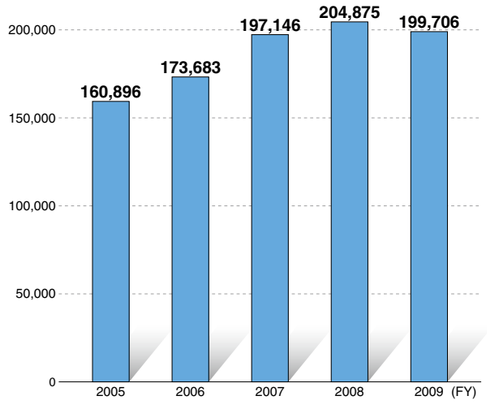
Other
- ★ Kurita Sogo Service Co., Ltd.

* Kurita (Singapore) Pte. Ltd. is engaged in both the water treatment chemicals business and the water treatment facilities business.
* Companies marked with a ★ are Group companies covered by this *Environmental Report*.

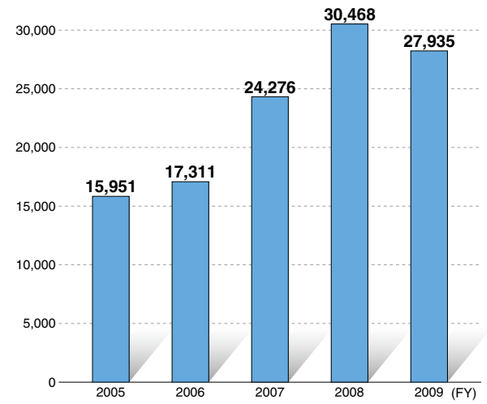
(As of March 31, 2009)

Financial Information for the Year Ended March 31

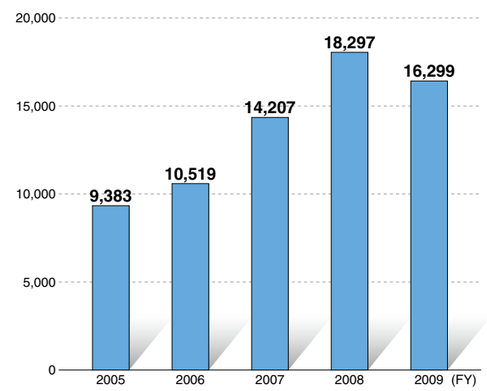
Net sales (millions of yen)



Operating income (millions of yen)



Net income (millions of yen)



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Editorial Policy

We have published this report to help our stakeholders deepen their understanding of the Kurita Group's environmental improvement activities. In the report, we disclose examples and the results of the activities we conducted in line with our three-pronged approach of "societal needs," "customer needs," and "internal change" and based on our Basic Environmental Improvement Policy.

In creating the report, we referred to the Japanese Ministry of the Environment's Environmental Reporting Guidelines 2007 and Environmental Accounting Guidelines 2005.

All of the product names listed in this report are registered trademarks or trademarks of Kurita or other companies.

This report is published under the title of *Environmental Report*, as in the previous years. The Kurita Group has been endeavoring to solve issues concerning water and the environment since its foundation, and the title implies the Group's intention to help achieve a recycling-based society through its business operations, with a strong focus on the environment.

Organizations covered:	Kurita Water Industries Ltd. and other domestic Kurita Group companies (20 companies in total)
Period covered:	Fiscal 2009 (April 1, 2008 to March 31, 2009) The report also mentions some policies and targets set for April 2009 onwards.
Date of publication:	September 2009 (next publication slated for September 2010)

Company names:
"Kurita" refers to Kurita Water Industries Ltd., "Group companies" refer to domestic Kurita Group companies, and the "Kurita Group" refers to Kurita Water Industries Ltd. and domestic Kurita Group companies.

Committed to Solving Issues Related to Water and the Environment through Business Operations Based on the Corporate Philosophy

Hiroshi Saito
President
Kurita Water Industries Ltd.

Katsuhiko Kokubu
Professor at Graduate School
of Business Administration
Kobe University

Regarding the direction of the Kurita Group's environmentally sustainable management, which the Group regards as one of its social responsibilities, Katsuhiko Kokubu, a professor at Kobe University's Graduate School of Business Administration and an expert in environmentally sustainable management, talked with President Hiroshi Saito of Kurita Water Industries Ltd.

Kurita Group's Social Responsibilities

Kokubu: The importance of environmentally sustainable management has been increasing in accordance with the progress made in international discussions on anti-global warming measures. I think that such management has increased in importance because the target—reducing greenhouse gas emissions—cannot be achieved without industries and companies getting on board. So the ultimate goal involves more than just meeting target figures. Environmental improvement initiatives are now regarded as one of the most important factors in management decisions.

Saito: When the term "environmentally sustainable management" began to be used, it seemed that many companies were using it merely to improve their corporate image. At present, however, a large number of companies highlight the actual environmental performance of their products, and I feel that environmental improvement is becoming a business.

Kokubu: I think it is difficult for companies to survive in society only by reducing greenhouse gas emissions at their factories and offices. They also need to implement measures to reduce greenhouse gas emissions in the use phase of their products. What measures does the Kurita Group plan in this regard?

Saito: For 60 years since its foundation, the Kurita Group has long been contributing to society through its business operations based on the corporate philosophy, "Study the properties of water, master them, and we will create an environment in which nature and man are in harmony." Specifically, the Kurita Group is conducting environmental improvement activities focusing on activities that help customers improve the environment, in addition to reducing the Group's own environmental impact. In the environmental improvement activities for customers, we are committed to (1) "societal needs" by developing new products and technologies that help solve water- and environment-related problems and also (2) "customer needs" by proposing and providing environmental improvement to customers. I believe that conducting these activities through continuous business operations represents one of the Kurita Group's social responsibilities and these activities do make the Group socially significant.

New Medium-Term Plan for Environmental Improvement Activities

Kokubu: Since the Kurita Group began conducting environmental improvement activities in 2004, I have been making related improvement proposals from a third-party perspective. Over the last five years, the target of the activities was expanded to include all domestic Group companies, and the promotion systems and the achievement data collection mechanism were thus improved. Moreover, you formulated a new three-year medium-term plan covering these activities, in which you set quite aggressive targets and policies. Please tell me about the purpose of this plan.

Saito: We have formulated the new medium-term plan to further boost our environmental improvement activities, in particular environmental improvement activities for customers. To achieve this target, we have reviewed our Basic Environmental Improvement Policy to make it clearer that the activities are to be conducted by the entire Kurita Group and that we are committed to contributing to society through our business operations. At the same time, we newly set Action Guidelines. In the Guideline for "customer needs," we incorporated the themes set in the Medium-Term Management Plan, which started in April 2009, to show Group employees that business activities and environmental improvement activities are linked at the Kurita Group.

Kokubu: If you can successfully combine the initiatives taken in your solution business in which you propose and provide environmental benefits to customers with the initiatives you implement to respond to the "customer needs," employees will more clearly be able to understand the linkage between the business activities and environmental improvement activities.

Saito: At present, the Kurita Group is endeavoring to shift its business model from the conventional one, in which we focus on product-based business, to a style in which we propose and provide new solutions, including but not limited to products, to customers to support them in improvement of productivity, reduction of environmental impact, and creation of new energy. These three themes reflect the main needs of customers that were identified in the customer satisfaction survey we conducted in 2008. For the Kurita Group, "environmentally sustainable management" means to achieve growth by linking its business plan focusing on profitability with the environmental improvement activity plan focusing on the environment.

Kokubu: In order to further promote environmental improvement activities, you need to think about how to set the targets and use them in addition to publicizing the policies and themes for the activities. Recently, some companies have set super-long-term targets for 2050 and then set specific targets and measures toward the achievement of those super-long targets. These companies are fostering their activities by showing the future benchmarks and by setting specific targets for the achievement of the benchmarks.

Saito: At the summit meeting held this July, developed countries announced their commitment to reducing greenhouse gas emissions by at least 80% by 2050. Companies, including the Kurita Group, need to prepare themselves to contribute to the achievement of this target, and setting super-long-term targets would be one of the means. The Kurita Group will continue to contribute to society through business operations based on its corporate philosophy. As the first step to this end, we will steadily implement the new medium-term plan for environmental improvement activities.

(Interview conducted in July 2009)

Environmental Management

Each and every employee of the Kurita Group is conducting environmental improvement activities based on the Basic Environmental Improvement Policy and the Action Guidelines.

Approach to Environmental Improvement Activities

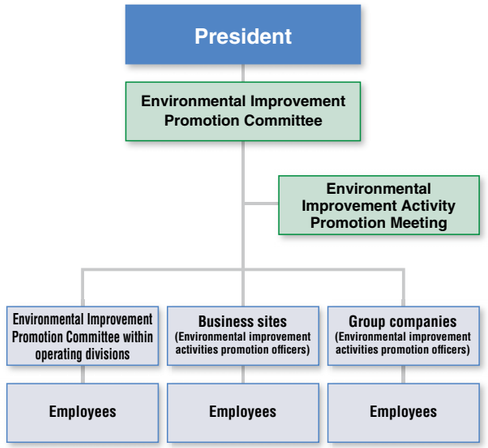
At the Kurita Group, each and every employee is conducting environmental improvement activities based on the Basic Environmental Improvement Policy and the Action Guidelines.

We have established the Kurita Group's Environmental Improvement Promotion Committee chaired by the Kurita director responsible for environmental improvement activities. This Committee discusses and sets the Group's policies on environmental improvement activities and the issues related to the activities. Based on the policies set by this Committee, the Environmental Improvement Promotion Committee within operating divisions, which is supervised by the Group's Committee, in hand with the environmental improvement activities promotion officers of Kurita's business sites and other Group companies, lead the activities in cooperation with the related departments. Specifically, they set concrete targets, policies, and measures and conduct relevant activities.

We check and follow up the progress and achievements made for the targets, policies, and measures every quarter and verify the appropriateness and effectiveness of the related activities with the aim of executing the PDCA cycle without fail. Also, in order to identify the situations and progress made concerning environmental improvement activities conducted at each of our sites, we regularly conduct on-site surveys. In particular, we focus on the management of chemical substances and waste and conduct surveys from the viewpoint of legal compliance. If necessary, we implement corrective measures for continuous improvement.

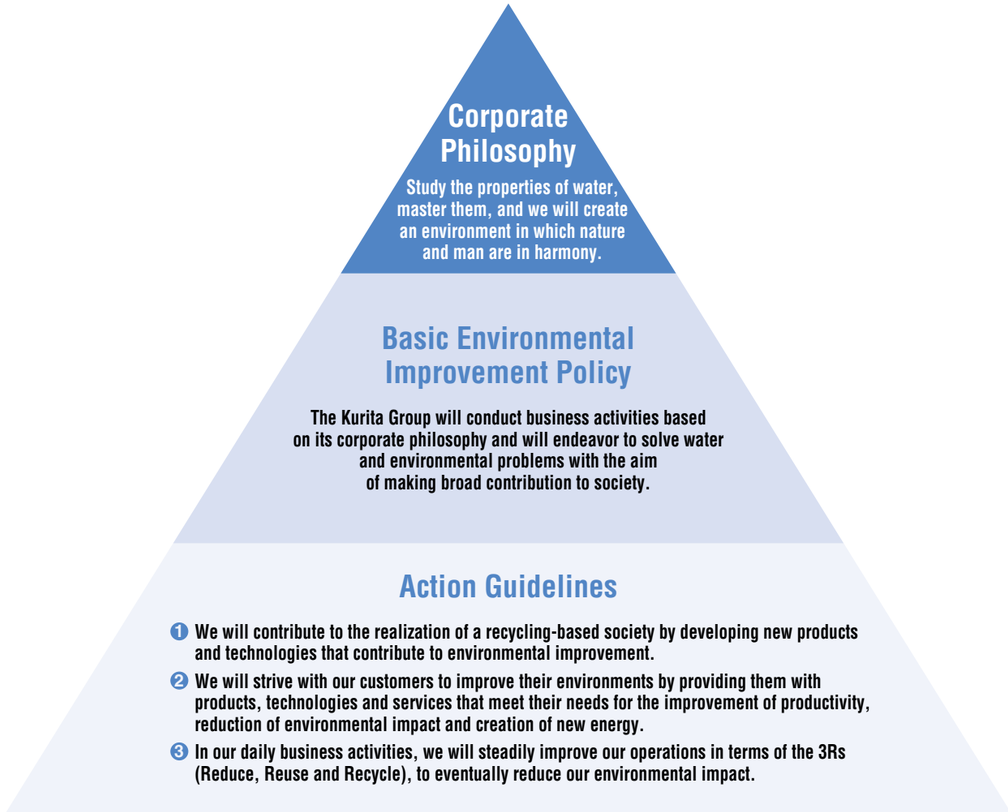
The Kurita Group will continue to develop itself and help solve water- and environment-related problems by conducting environmental improvement activities focusing on the three aspects of "societal needs," "customer needs," and "internal change."

Organizational system for promoting environmental improvement activities



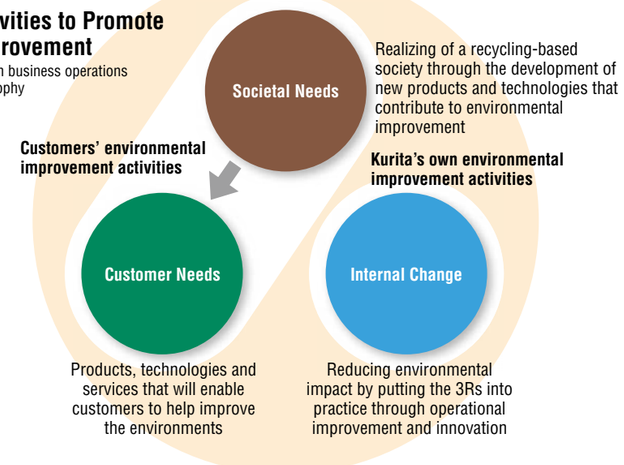
Tetsuo Saeki
Director responsible for environmental improvement activities
Managing Director and General Manager
Corporate Planning Division
Kurita Water Industries Ltd.

Environmental Management Policy



In April 2009, in launching the new Medium-Term Management Plan, we revised the Basic Environmental Improvement Policy and newly established the Action Guidelines.

Kurita Group's Activities to Promote Environmental Improvement
Contributing to society through business operations based on the corporate philosophy



The Kurita Group's Environmental Activity Results and Targets

By taking the three-pronged approach for the environment, the Kurita Group achieved the following results in fiscal 2009 and set the following targets for fiscal 2010.

Societal Needs

Item	Results in fiscal 2009	
Number of new technologies and products developed to contribute to environmental improvement	12	
Environmental benefits to customers through new products	Benefit indicator	
	CO_2 emission reduction	23,082 t
	Waste reduction	14,892 t

* The environmental benefits to customers in the aspect of "societal needs" are included in the results for the aspect of "customer needs."

Scope of target: Kurita

Customer Needs

Item		
Environmental benefits to customers	Benefit indicator	
	CO_2 emission reduction	68,725 t
	Waste reduction	35,454 t
	Reduction of substances of concern	345 t
	Wastewater treatment	14,910,000 m^3
	Remediation of contaminated soil	1,469,000 m^3

Scope of target: Kurita and 19 domestic Group companies (20 in total)

Internal Change

Item	Fiscal 2009			Fiscal 2010	
	Target		Result	Target	
CO_2 emission reduction	Compared with emissions per sales of ¥1 million in fiscal 2008	2.0% reduction	4.7% increase (112.9 kg/¥1 million)	Compared with emissions per sales of ¥1 million in fiscal 2009	1.0% reduction
Waste reduction		1.0% reduction	4.9% increase (135.9 kg/¥1 million)	Absolute value	0.0% increase
Failsafe management of chemical substances	Appropriate management of chemical substances at each business site		Cases of noncompliance with the Poisonous and Deleterious Substances Control Act: 0	Appropriate management of chemical substances at each business site	

Scope of target: Kurita Group

Initiatives for Higher Environmental Awareness

Kurita's Chemicals Division and Facilities Division provide education on the Company's environmental improvement and energy conservation activities as part of training given to new employees, while the Research and Development Division annually conducts training on safety, health, and the environment targeting employees of the Kurita Global Technology Center with the aim of making related improvements. In addition, the Chemicals Division distributes an addendum to our technical booklet that provides information on the Kurita Group's Basic Environmental Improvement Policy, improvement targets, social trends concerning the prevention of global warming and energy conservation to each employee, including employees of the sales companies and agents for the water treatment chemicals.

The Kurita Group will continue to hold these environmental education sessions to further improve employees' environmental awareness. In fiscal 2009, the following sessions were provided at the Kurita Group.

Environmental education provided in fiscal 2009

Name of the session	No. of participants	Period	Target
Training for new employees (on environmental improvement activities)	30	April 2008	Facilities Division of Kurita Water Industries Ltd.
Training for new employees (on the global environment and energy conservation)	23	April 2008	Chemicals Division of Kurita Water Industries Ltd.
Training on the proper disposal of industrial waste	18	May 2008	Kurita Meiki Ltd.
Training on safety, health, and the environment	503	July 2008 and Feb. 2009	Kurita Global Technology Center, Kurita Water Industries Ltd.
Training for emergency	18	Dec. 2008	Kurita Engineering Co., Ltd.
Basic environmental education (on the global environment)	77	April 2008 to Mar. 2009	Kuritec Service Co., Ltd.
Environmental education on ISO 14001 certification	51	Dec. 2008 to Mar. 2009	Yamaguchi Plant, Kurita Water Industries Ltd.

Acquisition of ISO 14001 Certification

As part of their environmental improvement activities, some of Kurita's business sites and some of other Group companies have acquired ISO 14001 certification in consideration of their high environmental load. They are operating the environmental management systems that they have built in compliance with ISO 14001 standards.

Company name	Site location	Name of certification body	Date of certification
Kurita Water Industries Ltd.	Shizuoka, Yamaguchi, and Toyoura (plants)	LRQA	July 1, 1998
Kurita Buil-Tech Co., Ltd.		JCQA	Mar. 25, 2002
Kurita Chemicals Oita Ltd.		JACO	June 26, 2002
Kurita Chemical Manufacturing Ltd.	Egawa and Ako (factories)	JCQA	Mar. 24, 1997
Kuritaz Co., Ltd.		LRQA	Feb. 25, 2000
Kuritec Service Co., Ltd.		JSA	Feb. 14, 2003

* Kurita Chemical Manufacturing Ltd. was established on April 1, 2009.

Compliance with Environmental Laws and Regulations

The Kurita Group is committed to complying with environmental laws and regulations and regularly checks information about them.

In fiscal 2009, we received no environment-related fines or penalties, and had no serious incidents that would have great influence on people outside the Group.

Major environmental laws that govern the business activities of the Kurita Group

- Water Pollution Control Act
- Act on the Rational Use of Energy
- Sewerage Act
- Noise Regulation Act
- Waste Management and Public Cleansing Act
- Vibration Regulation Act
- Poisonous and Deleterious Substances Control Act
- Air Pollution Control Act
- Fire and Disaster Management Act

Special Topic

Initiatives in the Aspect of "Societal Needs"

We are committed to creating new products and technologies that help solve problems related to water and the environment.

Fostering R&D on the Three Themes of Improvement of Productivity, Reduction of Environmental Impact, and Creation of New Energy

In the aspect of "societal needs," we are creating new products and services that fundamentally help solve social environmental problems based on the Action Guidelines.

In our new medium-term plan for environmental improvement activities, we conduct R&D focusing on the following three themes: (1) improving productivity by developing leading-edge technologies for the improvement of water quality and optimal technologies for water treatment processes; (2) reducing environmental impact by strengthening wastewater treatment and soil remediation technologies and by developing technologies to recover and reuse wastewater and valuable resources and to reduce waste generation; and (3) creating new energy by further advancing energy conservation technologies and using water for the creation of hydrogen and solar energy.

Identifying the Results from the Aspect of "Societal Needs"

As for the results achieved in the aspect of "societal needs," we identify them in terms of the "number of developed technologies and products" and "environmental benefits to customers." The number of developed technologies and products was calculated based on the number of themes for which R&D were completed. The number was 12 in fiscal 2009.

The environmental benefits to customers were calculated based on the reduction of environmental impact that was achieved at customers' factories and other business sites through the application of our "products with identified environmental contribution effects" selected from among the technologies and products for which R&D were completed. We set the method to calculate the reduction of environmental impact for each of these products, and identify the environmental benefits to customers in the aspect of "societal needs" according to the number of orders received from each customer. From among the themes for which R&D were completed in fiscal 2009, we have selected seven products and 11 products for water treatment chemicals and water treatment facilities, respectively, as special "products with identified environmental contribution effects."

Action Guideline: We will contribute to the realization of a recycling-based society by developing new products and technologies that contribute to environmental improvement.

We are developing new products and technologies to help reduce environmental impact within society.

Regarding the initiatives taken in the aspect of "societal needs," we interviewed an employee in charge of development at Kurita.

— What role do you think the departments in charge of development should play in the Kurita Group's environmental improvement activities?

Mashiko: I think the development departments, including our department, should create new technologies that help improve the environment in the water and environmental fields by identifying the social and market needs and bringing these technologies to a commercial level as soon as possible.

— What measures are you implementing to identify the social and market needs?

Mashiko: At present, I am mainly engaged in the development of chemicals for incineration facilities. In my job, I visit the actual facilities together with employees in charge of sales to directly ask customers about the problems they presently face, to check the use of water and heat at their facilities, and to investigate how waste is generated and disposed of there, and to see if more waste can be eliminated or if there is any room for improvement. I am thus daily committed to identifying market needs.

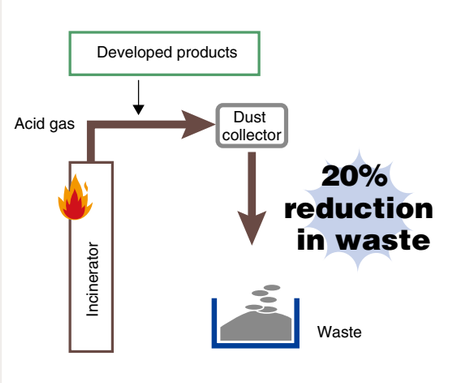
Also, I believe it's important to prepare for possible problems in the future, in addition to providing solutions to existing problems. To this end, we make exchanges with engineers of other companies, obtain relevant information through a variety of media, and search for tips for development by examining social trends.

— Please give an example of a product that you have developed to contribute to environmental improvement.

Mashiko: At incineration facilities, acid gas is safely treated by the use of chemicals, but the chemicals themselves eventually become waste. To solve this problem, I developed a chemical which can efficiently neutralize acid gas with a small amount of addition, and this has resulted in about a 20% reduction in the amount of waste.

— What would you like to do in the future?

Mashiko: I will continue to develop new products and technologies that help reduce waste generation and also conserve energy, in order to contribute to reducing environmental impact.



Mitsuhiro Mashiko
Environmental Technical Section
Environmental Chemicals
Technology Department
Chemicals Division
Kurita Water Industries, Ltd.

Special Topic

Initiatives from the Aspect of "Customer Needs"

We support customers in conducting environmental improvement activities at their factories and other sites through out business operations.

Making Improvement Proposals That Help Customers Solve Problems

In the aspect of "customer needs," based on the Action Guideline, we share the problems of our customers as problems of our own and propose and provide improvement plans in response to their needs, thereby contributing to the improvement of the environment at their factories and other sites.

Under our new medium-term plan for environmental improvement activities, we propose and provide products, technologies, and services that support customers to improve productivity, reduce their environmental impact, and create new energy. We thus help customers improve the environment through our business activities.

Identifying the Results for "Customer Needs"

The Kurita Group calculates environmental impact reduction as achieved through adopting the Group's improvement proposals as "environmental benefits to customers." We use them as an indicator for achievements we have made in the aspect of "customer needs." We evaluate the results of our initiatives to respond to the "customer needs" based on this unique indicator and incorporate the evaluation results in our activities for the following fiscal year.

The environmental benefits to customers are calculated not based on the actual results: but as estimates (deemed effect). Specifically, based on the environmental impact reductions that we have estimated in our specifications and proposals submitted to customers, we calculate the annual difference in the amount of environmental impact before and after having adopted our proposals.

The actual results are reported monthly by employees in charge of sales and design, and are tabulated for each business sector. The Environmental Improvement Promotion Committee then confirms the results of the entire Kurita Group.

Action Guideline: We will strive with our customers to improve their environments by providing them with products, technologies and services that meet their needs for improvement of productivity, reduction of environmental impact and creation of new energy.

Making a proposal → **Receiving an order** → **Identifying the benefits**

- Making a proposal on environmental improvement by the use of the Kurita Group's products, technologies, and services
- Evaluation of the environmental benefits by the customer
- Identifying the environmental benefits to customers by estimating the difference in their environmental impact before and after the implementation of the proposal
- The benefits are not calculated based on actual results: they are estimates (deemed effect) shown in the specifications and proposals

Service Business for the Achievement of Environmental Improvement

The Kurita Group provides customers with services that help them reduce their environmental impact, in addition to selling products that contribute to environmental improvement (e.g. water treatment chemicals and facilities) to customers.

In the "Water Supply Business," the Kurita Group provides comprehensive services, including the installation, operational management, and maintenance of ultrapure water production systems and wastewater treatment and recovery equipment. In these onsite services, the Group ensures the optimal operational management of water treatment facilities as an expert in water treatment, which will in turn minimize the environmental impact from the facilities.

In the "Tool Cleaning Services," we clean tools that customers have used in the manufacture of semiconductors and liquid crystal displays (LCDs) at our factories, so that these tools can be reused by them. Through this service, we can help customers improve their productivity and reduce their environmental impact.

■ We support customers in solving problems toward the achievement of their environmental improvement targets.

Regarding Kurita's initiatives in the aspect of "customer needs," we interviewed an employee in charge of the water supply business at the Company.

— What measures are you implementing to ensure both the stable supply of ultrapure water and environmental impact reduction?

Matsutani: We are committed to preventing problems by understanding the present situation and predicting future issues based on data obtained through daily operational management. We decide on the maximum durable hours of consumables based on data accumulated in the past, determine operational management methods and maintenance plans in consideration of the durable hours thus decided, and endeavor to reduce the generation of waste by decreasing both the use of water treatment chemicals and the frequency of replacing consumables.

I am now in charge of the Kameyama Plant of Sharp Corporation, which is a "Super Green Factory" where the customer is drastically pursuing environmental impact reduction. At this factory, about 70% of waste is generated at the water treatment facilities managed by Kurita, and we are sharing the goal of reducing the environmental impact from the facilities with the customer. We will continue to share relevant information with the customer and jointly implement improvement measures.

— Please introduce the major environmental impact reduction measures you implemented in fiscal 2009.

Matsutani: In fiscal 2009, we newly installed equipment to recover phosphorous acid contained in wastewater as a valuable resource at existing wastewater treatment facilities, with a view to reducing generation of waste. Moreover, we compared multiple operational methods for the dehydration equipment under various conditions and adopted a method optimal for reducing sludge by 16% to 20%.

— Please tell us about your future plans.

Matsutani: We at the Kameyama Sub-branch have been implementing measures for environmental improvement in cooperation with customers. As their business partner, we will continue to propose and implement solutions that help customers achieve their environmental improvement targets.

Naoki Matsutani
Kameyama Sub-branch
Ultra Pure Water Supply Group
2nd Facilities Division
Kurita Water Industries Ltd.

Fiscal 2009 Environmental Benefits to Customers

In this and following pages, we report the environmental impact reductions achieved at our customers' factories and other sites.

Environmental Benefits to Customers

For fiscal 2009, we estimated the environmental benefits (deemed effect) we had brought to the customers who had given orders to us during the period from April 1, 2008 to March 31, 2009. The calculations were done to get the difference between the environmental impact before and after the introduction of Kurita products based on the environmental impact reduction that we had estimated in our specifications and the proposals presented to these customers at the time of their orders.

Type of benefit	Benefit indicator	Environmental benefits to customers*1	
		Results for fiscal 2008	Results for fiscal 2009
CO_2 emission reduction*2	Water savings	14,520,000 m³	9,151,000 m³
	Electricity reduction	11,735 MWh	7,785 MWh
	Heavy oil reduction	4,149 kℓ	16,271 kℓ
	Gas reduction	1,636,000 m³	6,410,000 m³
	CO_2 emission reduction Total	29,371 t	68,725 t
Waste reduction	Sludge reduction	40,752 t	35,057 t
	Recycled waste	306 t	362 t
	Fly ash reduction	444 t	35 t
	Waste reduction Total	41,502 t	35,454 t
Reduction of substances of concern	Reduction of regulated substances	102 t	99 t
	Chemicals reduction	1,058 t	246 t
	Reduction of substances of concern Total	1,160 t	345 t
Water pollution prevention	Wastewater treatment	12,160,000 m³	14,910,000 m³
Remediation of contaminated soil and groundwater	Remediation of contaminated soil	860,000 m³	1,469,000 m³

*1. Scope for calculating environmental benefits to customers: for fiscal 2008, Kurita Water Industries Ltd. and 12 other domestic Group companies (13 companies in total); for fiscal 2009, Kurita Water Industries Ltd. and 14 other domestic Group companies (15 companies in total)
*2. CO_2 conversion factors: 0.381 kg-CO_2/kWh for electricity; 0.58 kg-CO_2/m³ for tap water (industrial water); 2.8 kg-CO_2/ℓ for class-A heavy oil; 2.1 kg-CO_2/Nm³ for gas (city gas)

• Water savings
Calculated as a reduction in the use of tap water and gray water achieved through the recovery and reuse of wastewater from factories and of blow water released from cooling towers

9,151,000 m³ of water saved this year

Equivalent to the consumption of about **28,600** households

A four-member household consumes 320 m³*1 of water per year on average. A 9,151,000 m³ saving of water is therefore equivalent to the total amount of water consumed by about 28,600 households in one year.


Wastewater reclaim systems

• CO_2 emission reduction
Reduction in the use of energy achieved through improvement measures, such as improving the thermal efficiency of boilers and cooling water systems, is converted as a CO_2 emission reduction

CO_2 emissions reduced by 68,725 ton this year

Equivalent to emissions from about **8,200** households

A four-member household emits about 8.4 tons*2 of CO_2 per year on average. The emission reduction of 68,725 t is therefore equivalent to the total amount of CO_2 emitted by about 8,200 households in one year.


Boiler plant

• Waste reduction
Calculated as a reduction of waste achieved by the introduction of wastewater treatment facilities that generate less waste and of waste recycling facilities

Waste reduction by 35,454 ton this year

Equivalent to waste generation by about **22,300** households

A four-member household generates about 1,590 kg*3 of waste per year on average. The waste reduction of 35,454 t is therefore equivalent to the total amount of waste generated by about 22,300 households in one year.


Organic sludge recycling systems

• Wastewater treatment
Calculated as the annual amount of wastewater treated by wastewater treatment facilities*

* Calculated based on the design values shown in the specifications

14,910,000 m³ of wastewater treated this year

Equivalent to water from about **8,800** swimming pools

The standard size of a swimming pool is 50 m in length, 20 m in width, and 1.7 m in depth, and its volume is 1,700 m³. The 14,910,000 m³ of wastewater treated is therefore equivalent to the volume of water from about 8,800 swimming pools.


Wastewater treatment systems

• Remediation of contaminated soil
Calculated as the amount targeted for remediation among the soil contaminated by hazardous substances

1,469,000 m³ of contaminated soil remediated this year

Equivalent to about **264,400** 10-ton truckloads

The remediation of 1,469,000 m³ of contaminated soil (1 m³ of soil weighs 1.8 t) is equivalent to about 264,400 10-ton truckloads.


Remediation of contaminated soil

*1. 2006 survey on water utilization in daily life conducted by the Bureau of Waterworks, Tokyo Metropolitan Government
*2. Data on greenhouse gas emissions in Japan from April 1, 1990 to March 31, 2007 announced by the Greenhouse Gas Inventory Office of Japan on May 16, 2008
*3. Annual Report on the Environment and the Sound Material-Cycle Society in Japan 2007, released by the Japanese Ministry of the Environment on June 6, 2007

Examples of Initiatives That Brought Environmental Benefits to Customers

The following shows examples of initiatives that brought environmental benefits to our customers.

Reducing CO_2 Emissions by 56 Tons a Year by Suppressing the Energy Loss of the Water Chiller-Heater

Lumine Co., Ltd., Lumine Shinjuku

Type of benefit	Benefit indicator	Environmental benefits to customers
CO_2 emission reduction	Gas reduction	56 t/year*

* Calculated based on the LTD values (LTD is an indicator that shows temperature differences between the coolant of a water chiller-heater and the water used to cool the coolant)

Lumine Shinjuku of Lumine Co., Ltd. is committed to continuously reducing the use of electricity and gas according to the Lumine Group's environmental policies. The Kurita Group proposed to Lumine Shinjuku a method to curb the use of gas by maintaining the performance of its water chiller-heater. Specifically, performance is maintained by identifying the level of stains attached to the heat transmission surface of the heat exchanger located inside the water chiller-heater through the LTD values and then appropriately removing the attached stains with the use of water treatment chemicals.

The water chiller-heater is designed to supply cold water at a fixed temperature, and to maintain this temperature, the equipment will use a larger amount of fuel if the stains attached to the surface of the heat exchanger lower its thermal efficiency. The attachment of stains therefore results in energy loss compared to when the equipment is kept clean. To prevent energy loss and conserve energy, the Kurita Group proposed that the customer check for the attachment of stains at an early stage by measuring the LTD values, which serve as an indicator to show the thermal efficiency of the water chiller-heater.

LTD meter (as shown by the arrow mark) installed to the chiller

In implementing the proposal for the customer, we made it possible (1) for the chemicals used to prevent the attachment of stains to be automatically poured into the cooling water according to the operational load of the cooling tower, and (2) for the stain removal chemicals to be additionally injected when the LTD value rose, thereby always keeping the heat exchanger in a clean state. This has brought about an annual reduction of 56 tons of CO_2 emissions to the customer.

Customers' Voice

When Kurita first proposed we check the level of stains attached to the heat exchanger through the LTD values, we were not quite sure about the effectiveness. We, however, allowed Kurita to install the LTD meter on an experimental basis. Kurita subsequently reported to us that the LTD value rose, which meant that stains were indeed attached to the heat exchanger. We then inspected the water heater-chiller and actually observed stains attached to the heat exchanger. We therefore decided to adopt the proposal. It is appreciable that the adoption of the proposal has led to a reduction in our use of gas and has also enabled us to check the status of the heat exchanger without suspending its operation. I expect Kurita to continue to make proposals that help us reduce our environmental impact.

Makoto Seki

Reducing Water Consumption by 4,552 m^3 through the Recovery of Blow Water Released from the Cooling Tower

Huis Ten Bosch Heating and Cooling Supply Co., Ltd.

Type of benefit	Benefit indicator	Environmental benefits to customers
CO_2 emission reduction	Water savings	4,552 m^3*

* Actual reduction in the volume of water released to the sewage system for the period from August to October 2008

Huis Ten Bosch Heating and Cooling Co., Ltd. manages the district heating and cooling plant (DHCP) for the theme park "Huis Ten Bosch." This company is committed to the stable supply of cold water and steam and also to the reduction of the environmental impact of the plant for the harmonious coexistence of people with nature, which is a concept upheld by the park. The company is located in Sasebo City, Nagasaki Prefecture. Due to the low water retention ability of the local soil and the short length of local rivers, the city tends to face droughts. The amount of water supplied to the DHCP tended to be reduced in case of water shortages in the city. In response, to reduce the total amount of water used by the plant, the company examined reusing wastewater from the heating and cooling system.

The Kurita Group proposed the customer reuse the blow water released from the cooling tower into the sewage system after treating it with the equipment using the reverse osmosis membrane method. Due to the use of this treatment equipment it became possible for the plant to recover about 65% of blow water released from the cooling tower and reuse it as supplementary water for the tower. As a result, the company reduced water usage at the plant by 4,552 m^3 in fiscal 2009.

Equipment adopting the reverse osmosis membrane method to recover blow water from the cooling tower

Customers' Voice

We think the proposal to reuse wastewater by the use of the equipment to recover the blow water released from the cooling tower was suitable for the concept of "harmonious coexistence of people with nature" upheld by Huis Ten Bosch. Our DHCP is visited by local elementary and junior high school students in "eco tours" and we explain how water is saved by the use of the equipment to the students. We introduced the equipment to the plant in the summer of 2008 and so the equipment was only operated for three months of the year. We look forward to seeing how the equipment will be effective for water savings in fiscal 2010.

In the future, we expect Kurita to examine the effective use of both heat and water by the entire DHCP, expanding the focus from the cooling water facility.

Hidenobu Tanaka (right)
Takashi Yonemaru (left)

Reducing Waste by 14,900 Tons a Year through the Reuse of Phosphoric Acid

Sharp Corporation, Kameyama Plant

Type of benefit	Benefit indicator	Environmental benefits to customers
Waste reduction	Sludge reduction	14,900 t/year*

* Calculated based on the production amount

The Kameyama Plant of Sharp Corporation is the company's first Super Green Factory, where 100% of wastewater is recycled and a variety of environmental impact reduction technologies are concentrated. For its 10 Super Green Factories, including this plant, Sharp planned to reduce the generation of waste from the peak levels reached in the year ended March 31, 2008 and to further decrease the environmental impact of the factories. The Kurita Group had been managing the water treatment facilities of the Kameyama Plant, where waste from the water treatment facilities accounted for nearly 70% of the total. In response to the plant's need to reduce this waste, we searched for measures to meet that requirement in cooperation with the customer.

At the plant, where 100% of wastewater is recovered and reused, all impurities contained in the wastewater were disposed of as waste. We conducted a survey to identify the impurities, which were the sources of waste, and found that many of the impurities originated from phosphoric acid contained in the wastewater. Based on this finding, we proposed that the customer separate and recover phosphoric acid by the use of technologies such as the membrane separation technology. Supported by the customer, we were eventually able to complete the installment of equipment to recover phosphoric acid, after solving the technical problems related to the equipment through demonstration testing on site. This equipment has enabled the plant to reduce its waste amount by 14,900 tons annually. The phosphoric acid recovered by the equipment is used by the Kurita Group as material for water treatment chemicals.

Part of the phosphoric acid recovery equipment

Customers' Voice

We greatly appreciate that the equipment we installed upon recommendation, shows high performance and separates phosphoric acid from upstream wastewater. By the use of this equipment, we can also reduce the consumption of chemicals for other treatment of wastewater, thereby reducing waste from chemicals. In addition, it is wonderful that this equipment enables us to reuse phosphoric acid, which is one of the resources facing depletion.

I would like Kurita to continue to implement environmental impact reduction measures as our facilities management partner.

Kohki Narita

Extending the Life of a Landfill by Reducing Waste by 4,766 Tons a Year

Toyoha Mines Co., Ltd.

Type of benefit	Benefit indicator	Environmental benefits to customers
Waste reduction	Reduction of sediments*1	4,766 t/year*2

*1 Sediments generated when percolating water is neutralized by the use of alkaline agent
*2 Calculated by comparing with the case of applying the conventional coagulation-sedimentation method based on the designed water amount and quality

Toyoha Mines Co., Ltd. (Nippon Mining Holdings Group) planned to construct a new wastewater treatment plant for the constantly stable and appropriate treatment of percolating water. The company needed such a plant to treat percolating water at its site in Oshidorisawa, where mine material was discarded, without being influenced by any weather or environmental changes. The new wastewater treatment plant was also expected to generate only a small amount of sediments in the treatment process, which would in turn help extend the life of the company's final landfill site.

The Kurita Group, in response to a request from this customer, proposed to construct percolating water treatment equipment incorporating a function to repeat the coagulation of sediments. With this function, the equipment would increase the density of the sediments and reform them into sediments with excellent sedimentation properties and dewaterability. Then, the sediments would be dehydrated for the reduction of their volumes. This method is suitable for the treatment of percolating water containing metals, such as zinc and iron, at high content. In addition, by the use of this method, it is possible to reduce the water content of the sediments to about 48% using the dehydration process. Compared with the conventional coagulation-sedimentation method, the amount of sediments to be sent to the final landfill can be reduced by 4,766 tons a year.

Treatment of percolating water by the repetitive coagulation method

Customers' Voice

Now, after more than six months from the delivery and start of the operation of the equipment, we have already witnessed the effects as proposed, and expect that the life of the final landfill will be extended by about 10 times compared with the use of the conventional coagulation-sedimentation method. Moreover, the precision of the automatic control of the neutralization process has been improving, and we have decreased the use of lime hydrate by about 30%, because we can now manage the amount of the substance to be added in the process in an optimal manner. We greatly appreciate this fact.

If we construct a new landfill, it will cost us a lot and it will also be difficult to press forward with the construction in view of recent environmental regulations. It is therefore important for all those engaged in the treatment of wastewater from mines to extend the life of their final landfill sites. To this end, it is essential to reduce the generation of sediments from the neutralization process of percolating water and water from mines, and we expect that Kurita will continue to develop even more effective technologies and products for the reduction of waste volume.

Toshiyuki Kanemoto

Toshifumi Nomura

Special Topic

Initiatives in the Aspect of "Internal Change"

We constantly strive to reduce the environmental impact of our business activities.

Reduction of Environmental Impact through the Daily Efforts of Individual Employees

In the aspect of "internal change," we set our targets for each of the following three themes—CO_2 emission reduction, waste reduction, and the appropriate management of chemical substances—and each and every employee is daily committed to reducing the environmental impact of their business activities.

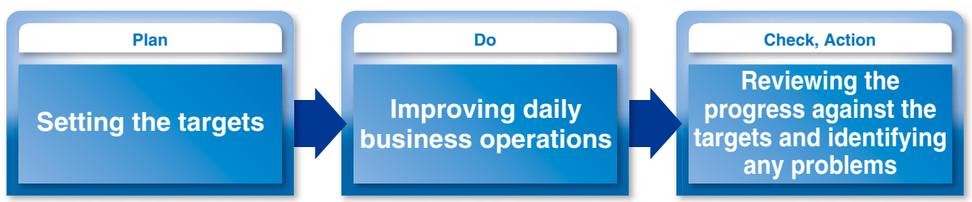
Specifically, in addition to reducing the use of electricity for air conditioners and IT devices at our offices and cutting the use of gasoline for our corporate vehicles, we are reducing the use of resources (raw and other materials, energy, and water) in the manufacture of water treatment chemicals and also curtailing the generation of waste in the manufacturing processes. Moreover, we are proactively engaged in environmental improvement activities as part of high-quality manufacturing: we are committed to reducing the use of resources not only in the manufacture but also for the transportation, installation, and operation of water treatment facilities to be delivered to customers.

Identifying the Results in the Aspect of "Internal Change"

We identify our monthly CO_2 emissions and waste generation figures by using the Kurita Group's environmental information collection system. We review and check the progress of our environmental impact reduction measures on a quarterly basis, thereby ensuring the execution of the PDCA cycle in the aspect of "internal change."

As for the appropriate management of chemical substances, the Environmental Improvement Promotion Committee, which is the organization for group-wide environmental improvement activities, dispatches a field survey team to each of the Kurita Group's bases to check how they manage the substances.

Action Guideline: In our daily business activities, we will steadily improve our operations in terms of the 3Rs (Reduce, Reuse and Recycle), to eventually reduce our environmental impact.



- CO_2 emission reduction
- Waste reduction
- Appropriate management of chemical substances

- Survey on the actual situation
- Quarterly review

In designing our products, we give due consideration to the reduction of their environmental impact in all phases, from manufacture, transportation and installation through to operation.

We interviewed an employee in charge of design about the initiatives taken in the aspect of "internal change."

— Please tell us about the approach you take to environmental improvement in designing water treatment facilities.

Ooshima: In designing the facilities, we give due consideration to the reduction of their environmental impact in all phases, from manufacture, transport and installation through to operation, without compromising customer satisfaction in terms of performance or cost. First, in designing the entire process for the facilities, we try to minimize the impact they will have on the environment while they are in operation by incorporating a system to recover and reuse water and heat for the conservation of water, energy, and resources, or by adopting a deodorizer that does not use chemicals.

In making a specific plan based on the designed process, we decide the layouts and structures of the water treatment facilities and accessory equipment in such a way as to make them light and compact, and also select energy-efficient devices for the conservation of resources and energy in the manufacture and transport of the products.

— Please give us an example of measures you have implemented for environmental improvement.

Ooshima: In one of the projects in which I participated last fiscal year, we installed 950 pipe racks on stanchions that extended about 2,500 meters in total. In this project, we made efforts to reduce the impact that the manufacture of pipe rack skids would have on the environment.

We had standardized the specifications for pipe rack skids within our company, but for the project, we fundamentally reviewed the specifications on the size and structure as well as the pipe installation method, receiving support from a range of in-house departments, such as the quality assurance department, and also from the partner company—the actual manufacturer of pipe rack skids.

Traditionally, the sizes of pipe rack skids had been regulated by the sizes of standard pipes. Taking a different view, however, we customized the rack skid size. We asked the manufacturer to enlarge the size in order to improve the manufacturing efficiency and reduce the use of materials, including joints. We also reviewed the specifications for the structure and materials of the skid frame and reduced the standard weight of the frame by 45% from those conventionally used, without compromising the strength. As a result, we were able to reduce the use of materials and generation of waste in the pipe rack manufacturing process and also cut the amount of energy required for the transportation of the manufactured rack skids.

— Please describe any special measures you took for the installation of the pipes.

Ooshima: For the installation of the pipes, we adopted the "Eco method" based on a proposal made by the partner company. For stainless steel pipes, joints are conventionally welded to pipes, for which a large amount of energy is used. Under the Eco method, the numbers of joints and parts to be welded are minimized through the direct processing of pipes, and this method helps reduce the materials and energy used for welding at the manufacturing plant.

We will continue to implement similar measures for the reduction of environmental impact in all phases, including the manufacturing phase.

Shigetoshi Ooshima
Plant Engineering Dep.1
Facilities Production Division
Kurita Water Industries Ltd.

The Kurita Group's Total Environmental Impact and Environmental Accounting

The following material flow diagram shows the total environmental impact of the Kurita Group in fiscal 2009.

Total Environmental Impact

INPUT

Materials

- Materials for chemicals .... 22,989 t
- Packaging materials ..... 384 t
- Copy paper..... 151 t

Energy

- Electricity..... 38,412 MWh
- Gasoline ..... 1,386 kℓ
- Light oil ..... 256 kℓ
- Kerosene..... 464 kℓ
- Class-A heavy oil..... 721 kℓ
- LPG ..... 6,770 m³
- LNG ..... 17,134 m³
- Chilled water ..... 3,292 GJ
- Steam ..... 731 t

Water

- Tap water..... 238,926 m³
- Gray water ..... 5,985 m³
- Groundwater ..... 619,161 m³

* The amount of materials used in manufacturing water treatment facilities is not shown in the above table due to difficulties collecting numerical data on these materials.

Water treatment chemicals business

Water treatment facilities business

OUTPUT

Production of chemicals ..... 34,737 t

CO_2 emissions ..... 22,541 t

Wastewater amount ..... 782,797 m³

Waste amount ..... 27,133 t

- General waste ..... 293 t
- Industrial waste..... 10,975 t
- Specially regulated industrial waste..... 15,865 t

Recycled amount..... 4,684 t

PRTR-regulated substances..... 0.3 t

Waste sold as valuable resources .... 958 t

Recycling rate 20.1%

* The production amount of water treatment facilities is not shown in the above table due to difficulties collecting numerical data on the facilities.

Environmental Accounting

We introduced environmental accounting to collect data on our environmental conservation costs, identify their effects, and improve our environmental efficiency.

Environmental conservation costs

Field of activity	Main initiatives	FY2008 Investment (million yen)	FY2008 Expenses (million yen)	FY2009 Investment (million yen)	FY2009 Expenses (million yen)
1. CO_2 emission reduction	Replacement of old equipment with more energy-saving equipment	130.6	27.6	122.2	47.4
2. Waste reduction	Introduction of equipment for waste reduction, appropriate treatment of waste	102.7	128.1	9.4	1,429.0
3. Measures for chemical substances	Personnel expenses for the management of chemical substances and cost of joining outside organizations	0	16.8	3.4	46.7
4. Air environment conservation	Introduction of exhaust equipment to improve the working environment	111.0	25.6	41.4	22.3
5. Water environment conservation	Enhancement of wastewater treatment systems following the expansion of business, maintenance and management of the systems	159.1	201.1	16.3	204.9
6. Soil environment conservation	Improvement of in-house equipment for storage of liquid chemicals	2.6	4.2	2.9	0
7. Others	Cost of disclosing environmental information, donation to the Kurita Water and Environment Foundation, and cost of ISO renewal inspections	0	77.4	0	103.0
Total		506.0	480.8	195.6	1,853.2

Environmental benefits and Eeconomic benefits

			Environmental impact FY2008	Environmental impact FY2009	Environmental benefits: CO_2 emission reduction	Economic benefits: Amount (million yen)	
CO_2 emissions		**t**	**22,505**	**22,541**	**-36**	**Expense reduction**	**-3.9**
Breakdown	Electricity	MWh	38,128	38,412			
	Gasoline	kℓ	1,337	1,386			
	Light oil	kℓ	248	256			
	Kerosene	kℓ	475	464			
	Class-A heavy oil	kℓ	765	721			
	LPG	m³	7,270	6,770			
	LNG	m³	19,236	17,134			
	Chilled water	GJ	4,029	3,292			
	Steam	t	768	731			
	Tap water	m³	231,338	238,926			
	Gray water	m³	5,919	5,985			
	Groundwater	m³	582,434	619,161			
	Copy paper	t	157	151			
Waste		**t**	**26,895**	**27,133**	**-238**	**Reduction in treatment expenses**	**-14.6**
Breakdown	General waste	t	334	293			
	Industrial waste	t	10,470	10,975			
	Specially regulated industrial waste	t	16,091	15,865			
Recycling		**t**	**1,784**	**2,119**	**335**		
Breakdown	Waste acid and chemicals	t	1,239	1,573			
	Wastepaper	t	171	223			
	Plastic and metal waste	t	267	252			
	Other	t	107	71			
Waste sold as valuable resources		**t**	**—**	**327**	**—**	**Income from the sale of waste**	**1.2**
						Total	**-17.3**

Notes: (1) The recycled amount and the amount of waste sold as valuable resources are calculated targeting only Kurita Water Industries, Ltd. for both FY2008 and FY2009.
(2) Waste is broken down into (1) general waste; (2) industrial waste; and (3) specially regulated industrial waste, and waste sold as valuable resources is not included in the total amount of waste.
(3) Economic benefits are calculated by multiplying emission reductions by unit prices as of March 2009.

Calculation of environmental accounts Calculation period: April 1, 2008 to March 31, 2009

Calculation range	1. Environmental conservation costs: Kurita Group 2. Environmental benefits: Kurita Group
Calculation method	1. Calculation is performed according to the Environmental Accounting Guidelines (2005 edition) of the Japanese Ministry of the Environment. 2. Environmental conservation expenses include depreciation of environmental investments made in previous years (on environmentally conscious equipment), and personnel expenses necessary for environmental improvement activities. 3. Items whose environmental effects are difficult to quantify directly are evaluated by estimating the proportion that serves for environmental improvement.

Reduction of Substances of Concern and Strengthening Management of Chemical Substances

In this and the following pages, we introduce the measures taken at Kurita Group sites for the reduction of substances of concern and the strengthening of management of chemical substances.

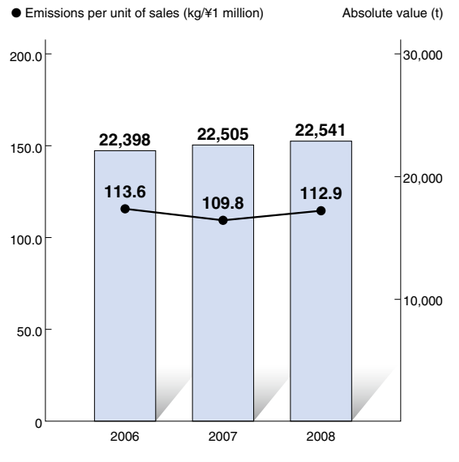
Reduction of CO_2 Emissions

In fiscal 2009, the Kurita Group's CO_2 emissions remained at almost the same level as the previous fiscal year, but its CO_2 emissions per unit of sales (¥1 million) increased by 4.7% to 112.9kg against the target of a 2.0% reduction. This was due to a decrease in sales caused by the rapid downturn of the market. We were thus unable to achieve the target.

In order to reduce power consumption, which caused roughly 60% of our total CO_2 emissions, we changed our air-conditioner temperature settings in implementing our "cool biz" and "warm biz" campaigns, promoted the replacement of lighting equipment with inverter-type fluorescent lamps, adopted energy-saving air-conditioning equipment, and operated air conditioners in a more efficient manner.

Moreover, to reduce the use of gasoline by our corporate vehicles, which caused the second-largest percentage (13%) of our total CO_2 emissions, we proactively introduced and replaced existing vehicles with hybrid cars and low-emission vehicles. We also improved the fuel economy of the corporate vehicles by removing unnecessary items from the vehicles to reduce the load and by encouraging more efficient driving.

CO_2 emissions

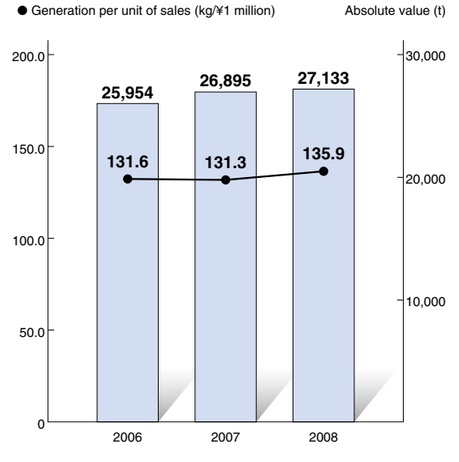


Reduction of Waste

In fiscal 2009, the amount of waste generated by the Kurita Group remained at almost the same level as the previous fiscal year, although waste generation per unit of sales (¥1 million) increased by 4.9% to 135.9 kg against the target of a 1.0% reduction. This was due to a decrease in sales caused by the rapid downturn of the market and we were thus unable to achieve the target.

To reduce both the total amount of waste generation and the amount of waste sent to landfills, the Kurita Group has been fostering sales and recycling of waste as valuable resources. Across the entire group, we plan to implement drastic sorting of waste, which has already produced some great results at selected sites, and select industrial waste disposal companies that will accept waste on the condition it will be recycled.

Waste generation



Strengthening Management of Chemical Substances

Conducting Surveys to Check the Management Status of Chemical Substances

At bases where chemical substances are used, facilitators of environmental improvement activities regularly check how these substances are managed. Moreover, the Environmental Improvement Promotion Committee conducts field surveys to ensure the substances are appropriately stored and used. In fiscal 2009, the Committee conducted a survey to check the management status of chemical substances at 24 bases of the Kurita Group. At bases where problems were identified, corrective measures have already been implemented.

In addition, in order to prevent the leakage and/or outflow of chemical substances, we continuously provide employees of the bases with necessary education and training to ensure safe operations.

Management of Class I Designated Chemical Substances

The Kurita Group is dealing with 15 chemical substances used for water treatment that are grouped as Class I Designated Chemical Substances under the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (hereinafter "PRTR Act"). We are appropriately managing these substances by collecting data on their annual use, release, and transfer, and reducing their release and transfer.

The table on the right shows the release and transfer of these PRTR regulated substances in fiscal 2009.

Release and transfer of Class I Designated Chemical Substances

Amount of use		526,610.5 kg
Release	Release into the air	72.7 kg
	Release into public waters	—
	Release into soil at the site	—
	Landfill disposal at the site	—
Transfer	Transfer to the sewage system	84.5 kg
	Transfer to outside the site	129.3 kg

Example of Initiatives Taken for Waste Reduction

Kuritaz Co., Ltd. is mainly engaged in the maintenance and management of water treatment facilities. The company conducted "SS activities" (SS stands for *seiri* and *seiton* in Japanese, which means to "sort" and "straighten") as part of efforts to reduce waste at all its factories and offices, with the participation of all employees.

In SS activities, employees are encouraged to attach red identification labels to items that seem to be unnecessary. These items are disposed of if they are subsequently not used for a certain period. The practice of this "visible" management method is not only useful for sorting and straightening but also for the review and improvement of the efficiency of the entire operational system. Furthermore, by conducting the SS activities in a thorough manner, the company can constantly optimize the maintenance and management of water treatment facilities, which will eventually lead to waste reduction and safe and stable operations at the facilities.

Social Contribution Activities

The Kurita Group is engaged in a variety of social contribution activities based on its corporate philosophy. For example, we support R&D in the field of water and the environment and conduct cleanup activities around our sites nationwide to improve the local environment.

■ Supporting R&D in the Field of Water and the Environment

The Kurita Group established the Kurita Water and Environment Foundation with a view to contributing to the creation of rich water environments and better local environments via the promotion of science and technology. Through this Foundation, we provide subsidies for surveys, research projects, and international exchange programs in the scientific field concerning water and the environment. In fiscal 2009, the Foundation selected 50 research projects from among 412 applications and granted subsidies to the selected applicants. In addition, through Japan Society on Water Environment, we give awards to young researchers to encourage their research activities. In fiscal 2009, 12 graduate students received the awards.

Subsidy granting ceremony held for fiscal 2009

■ Cleanup Activities around the Sites

In order to contribute to the improvement of the local environment, all Kurita Group's sites are proactively engaged in local cleanup activities.

For example, the Kurita Global Technology Center, which is located in Nogi-machi, Shimotsuga-gun, Tochigi Prefecture, conducted an activity to clean up the surrounding town. More than 50 employees and their families participated in the activity, picking up trash alongside the road over five kilometers from JR Nogi Station to the Center.

Kuritaz Co., Ltd. cooperates with local citizens for the protection of the environment. The company is committed to keeping its premises and the surrounding areas clean and proactively participates in cleanup activities and other events organized by local groups.

Kuritec Service Co., Ltd. has obtained ISO 14001 certification for all its sites. The company deems cleanup activities as an important means to protect the rich natural environment surrounding the sites, and all the sites annually conduct local cleanup activities.

Cleanup activity by employees of Kuritec Service

Third-Party Opinion

To ensure the disclosure of highly reliable information on a continual basis and to improve the quality of our environmental management, we ask the Institute for Environmental Management and Accounting (IEMA), as a third party, to give us their opinion concerning our environmental activities.

IEMA

Environmental Management Evaluation Report

To: Kurita Water Industries Ltd.

July 23, 2009
Institute for Environmental Management and Accounting

梨岡 英理子

Eriko Nashioka (Director/CPA & Certified Public Tax Accountant)

1. Purpose of this evaluation report
As a third party, independent of Kurita Water Industries Ltd., we herein state our opinions with the aim of enhancing the credibility of Kurita Group Environmental Report 2009, through an evaluation of the environmental management efforts described in the report.

2. Implemented procedures
To examine how the Kurita Group's environmental management activities are planned and executed, and how environmental performance data resulting from these activities (which serve as a basis for publicly disclosed information) are evaluated and utilized, we conducted an interview with Hiroshi Saito, president of Kurita Water Industries, and relevant responsible personnel at the company's head office, and inspected the Ako Factory of Kurita Chemical Manufacturing Ltd. We also visited some of the company's corporate customers to whom environmental benefits had been brought about by the Kurita Group. At the head office and the Ako Factory, we conducted a basic examination to verify that work is conducted according to defined systems in relation to source documentation for publicly disclosed data, using methods in accordance with financial auditing practices, as necessary.

3. Evaluation and comments
In its environmental management focusing on water and the environment, Kurita Water Industries has established a system to evaluate the environmental benefits it has brought about for its customers; environmental improvements it has achieved through the development of new technologies and products; and environmental improvements made within the company. The system was enhanced in fiscal 2008 and further improved in fiscal 2009, and now all Kurita Group companies are included in the scope of this system. Moreover, the company formulated a new medium-term action plan for its environmental improvement activities and revised its Basic Environmental Improvement Policy and the Action Guidelines. As a result, the Kurita Group now upholds more specific environmental management targets, and this has been widely appreciated.
In fiscal 2009, Kurita was not able to achieve all its environmental targets. In the future, it will have to take on the challenge of conducting even more advanced environmental management activities to achieve the new medium-term action plan and further strengthen its brand image as an "environmental company." To this end, it would be necessary for the company to closely link its environmental and business targets and build a mechanism in which the achievement of environmental targets leads to higher business performance. The company should eventually have a new environmental management system in place—a system that can respond to changes in the business environment.
Within the scope of our basic examination conducted in accordance with the procedures described above, we found no serious discrepancies with the calculation of environmental performance data.

<The Kurita Group's environmental improvement activities>
In fiscal 2009, we visited the Ako Factory, where we interviewed the employees in charge about their environmental improvement activities and checked the results of these activities. The Ako Factory is engaged in the manufacture of water treatment chemicals to be supplied to and sold by Kurita Water Industries. Through the visit, we confirmed that those at the factory had been making efforts to curtail CO_2 emissions and waste generation and to appropriately manage chemical substances, and that they had achieved nearly all the predefined targets. They were strongly committed to reducing their environmental impact, and their environmental management system was found to be working effectively. In addition, they were promoting the application of reusable containers for chemicals named "Eco Shuttles." At present, the containers are used for at least 70% of the products manufactured by the factory, despite the fact that the use of the containers will lead to higher costs. This is also highly appreciable.

<Contributing to reducing the environmental impacts of customers>
As in the previous fiscal year, we visited a corporate customer of the Kurita Group to interview the company about the Group's technologies and products. Specifically, we visited a customer to whom the Kurita Group made a proposal to improve the energy efficiency of the customer's chiller. The customer, who ended up adopting the proposal, highly appreciated the energy conservation effects brought about by the proposal. Through the visit, we confirmed that the Kurita Group greatly helps its customers reduce their environmental impact and achieve their environmental targets. The Kurita Group is committed to making social contributions and fulfilling its social responsibility through business, specifically through its activities to help its corporate customers improve the environment. This is a great commitment, but to fulfill it effectively, the Group should collect and evaluate data on the environmental benefits it has brought about in an appropriate and comprehensive manner. The Kurita Group has already been implementing measures to this end, but we expect the Group will search for even more effective information-collection measures and further raise the awareness of all those concerned, which will in turn help the Group achieve higher performance.