



Kurita Water Industries Ltd.

4-7, Nishi-Shinjuku 3-chome, Shinjuku-ku, Tokyo 160-8383, Japan

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For details of the Kurita Group's environmental initiatives, please visit our website:

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



KURITA GROUP
ENVIRONMENTAL
REPORT 2012

For the Year Ended March 31, 2012

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Approach to Environmental Improvement Activities

Corporate Philosophy

Study the properties of water, master them, and we will create an environment in which nature and man are in harmony.

Corporate Vision

Becoming an Advanced Water and Environmental Management Company

We are taking action to create a sustainable society in line with the Basic Environmental Improvement Policy, which is based on our corporate philosophy.



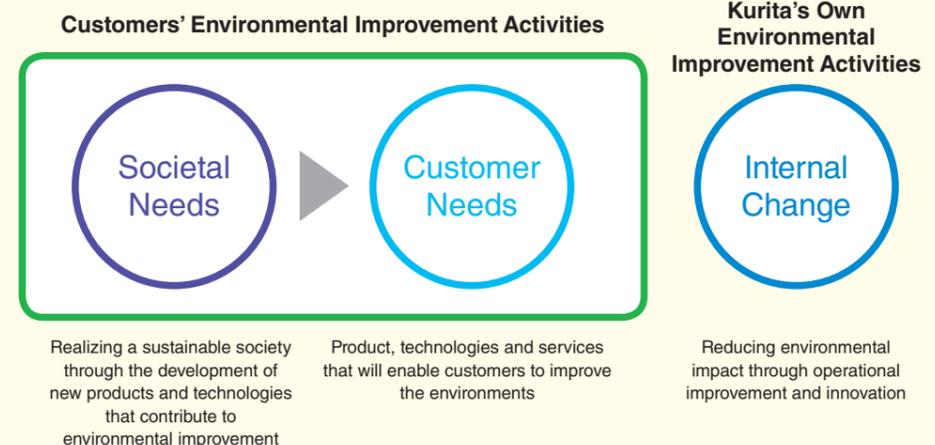
The Kurita Group will conduct business activities based on its corporate philosophy and will endeavor to solve water and environmental issues with the aim of making broad contributions to society.



1. We will contribute to the realization of a sustainable society by developing new products and technologies conducive to environmental improvement.
2. We will work with customers to improve the environment by providing products, technologies, and services that improve productivity, reduce environmental impact and offer innovative energy solutions.
3. In conducting daily business activities, we will reduce environmental impact through operational improvement and innovation.



The Kurita Group is continuing to develop and solve water- and environment-related problems by conducting environmental improvement activities from the three aspects of “societal needs,” “customer needs,” and “internal change.”



Editorial Policy

We have published this report to help our stakeholders understand the Kurita Group's environmental improvement activities. In the report, we disclose examples and results of our activities in line with the three aspects of “societal needs,” “customer needs,” and “internal change” and based on our Basic Environmental Improvement Policy. In creating this report, we referred to the Environmental Reporting Guidelines 2007 of the Japanese Ministry of the Environment.

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

Organizations covered: Kurita Water Industries Ltd. and other domestic Kurita Group companies
 Period covered: Fiscal 2012 (April 1, 2011 to March 31, 2012)
 The report also mentions some policies and targets set for April 2012 onwards.

Corporate Data

Company name: Kurita Water Industries Ltd.
Address: 4-7, Nishi-Shinjuku 3-chome, Shinjuku-ku, Tokyo 160-8383, Japan
 Nakano Central Park East, 10-1, Nakano 4-chome, Nakano-ku, Tokyo 164-0001, Japan
 (Relocation to this address slated for October 2012)
Paid-in capital: ¥13,450,751,434
Representative (President): Toshiyuki Nakai
Date of establishment: July 13, 1949
Fiscal year-end: March 31
Number of employees: 1,521 (parent company)
 4,555 (on a consolidated basis)
 (As of March 31, 2012)

Profile

The Kurita Group is composed of the parent company, Kurita Water Industries Ltd., its 40 subsidiaries and one affiliate. The Group's business is divided into two main categories: the water treatment chemicals business, in which we manufacture and sell water treatment chemicals, and the water treatment facilities business, in which we manufacture and sell water treatment facilities and provide related maintenance services.

We have long been contributing to the development of industry and society as a leading company in the field of water treatment based on our corporate philosophy, “Study

the properties of water, master them, and we will create an environment in which nature and man are in harmony.” In the 21st century, which is sometimes called the “century for the environment,” we are committed to making contributions to society by achieving advanced water management with our latest products, technologies and services to ensure that water of appropriate quality and quantity will always be available, whenever and wherever it is needed.

Contributing to Society through “Execution and Evolution” of Environmental Improvement Activities

Professor Katsuhiko Kokubu of Kobe University’s Graduate School of Business Administration, who is an expert in environmentally sustainable management, talked with President Toshiyuki Nakai of Kurita Water Industries Ltd. about activities the Kurita Group could execute and evolve in response to changes in Japan’s energy situation and environmental problems faced by emerging economies.



Katsuhiko Kokubu
Professor at Graduate School of Business Administration, Kobe University

Toshiyuki Nakai
President, Kurita Water Industries Ltd.

“Execution” of Environmental Improvement Activities by the Kurita Group

Kokubu: The Great East Japan Earthquake greatly changed the energy situation in Japan, and companies are now being required to implement substantial measures to foster business and reduce their environmental impact. This is happening in the face of uncertainty regarding the resumption of nuclear power plant operations and a resulting rise in production costs and environmental issues. Amid globalization of business, companies now have an environmental impact in a range of countries. They therefore need to foster measures for environmentally sustainable management across their supply chains and proactively disclose their progress to the public.

Nakai: We are strongly feeling the change in our customers’ environmental awareness. Those engaged in facilities management on the customer side now regard improved productivity, energy conservation and waste reduction as critically important corporate missions. Accordingly, the Kurita Group needs to raise the level of its proposals to customers to continue meeting their expectations.

As an example that shows how we are helping customers maintain their supply chains, let me mention about our ultrapure water supply business. In this business, we supply ultrapure water, which is indispensable



for the production of electronic components, such as semiconductors and LCDs to customers from our own bases located within the customers’ factories. Moreover, we recover and reuse cleaning water wasted from the production process, thereby contributing to a reduction in the environmental impact of the factories.

Kokubu: The Kurita Group provides customers with solutions as its business model. The Group helps customers become more aware of the importance of environmental improvements by making a range of proposals, and through this the Group greatly contributes to society, I think.

The Group is promoting the development of business also outside Japan as one of its priorities. What environmental improvement activities are you conducting in overseas?

Nakai: In overseas, we are developing products that meet the local needs of countries and helping customers reduce their environmental impact by delivering water treatment chemicals and facilities to them. In line with the progress of our overseas business, we will conduct environmental improvement activities also outside Japan as in the country, specifically by quantifying both the environmental benefits brought to local customers by overseas Kurita Group companies and the results of environmental improvement activities conducted within the companies.

Kokubu: China is experiencing an emergence of problems such as water shortages and water pollution. In fact, “water” is one of the biggest environmental issues worldwide, and some companies are beginning to identify the total amount of water used throughout the lifecycles of their products as their “water footprint.” In fact, a legion of companies are beating their brains to manufacture products with using a minimum amount of water.

Nakai: The Kurita Group has great strength in wastewater recovery and reuse technologies. The electronics industry has already been recovering and reusing wastewater, for example at semiconductor and LCD factories, and also in the food and automobile industries, demand for water recovery and reuse systems is increasing. In response, we will make appropriate proposals to customers in the industries to help them reduce the absolute amount of water they use while enabling them to continue using the same amount of water for their production activities.

“Evolution” of Environmental Improvement Activities

Kokubu: President Nakai, what challenges do you think the Kurita Group should meet in its environmental improvement activities?

Nakai: We of course need to enhance our environmental improvement activities as a whole. Also, in order to ensure that the Kurita Group will continue to be a corporate group needed by society, I think it is of utmost importance for us to improve the quality of the products, technologies, and services we deliver to customers to help them solve their water- and environment-related problems. To this end, in the new medium-term environmental improvement activity plan launched in April 2012, we have linked manufacturing quality improvement activities with environmental improvement activities. Moreover, we aim to increase the effectiveness of our environmental improvement activities by incorporating the environmental improvement goals independently set by each business unit in the target of “policy management,” which we regard as one of our main business management tools. We will thereby bring about more environmental benefits to customers through our proposals, while endeavoring to reduce our own environmental impact substantially from new viewpoints.

In fiscal 2013, we also began implementing measures



to reduce waste generated from the delivery of our water treatment facilities and other products to construction sites.

Kokubu: All corporate groups I know are facing difficulties in conducting specific activities across all group companies based on the policies and targets of the entire group’s environmental improvement activities. For the Kurita Group to further promote its environmental improvement activities, I think it is essential to correlate environmental benefits brought to customers with the Group’s own business performance.

Nakai: The Kurita Group is the only corporate group in the world that fulfills in a well balanced manner the three functions of supplying water treatment chemicals, delivering water treatment facilities and providing related maintenance services. We can therefore make the proposals that are the best for customers by using our comprehensive power, which no other company has in this field. In order for the Group to make full use of this great strength, it is important for individual employees to understand the purpose and significance of the Group’s environmental improvement activities and to talk about the activities at their workplaces.

Kokubu: The Kurita Group’s environmental improvement activities are unique in that they are conducted from the three aspects of “societal needs,” “customer needs” and “internal change.” Specifically, the Group is committed to meeting “societal needs” by developing new products and technologies, meeting “customer needs” by helping customers reduce their environmental impact at their factories, and fostering “internal change” to reduce the Group’s own environmental impacts. It is quite important that employees understand the significance of fulfilling these commitments, and I think it will encourage employees to strive further if information about these activities is dispatched and introduced more widely both within and outside the Group—both through the environmental report and other media.

Nakai: I want employees to re-recognize the fact that their activities are contributing to environmental improvements in society and conduct related activities more proactively as part of their daily business operations. With employees like this, the Kurita Group can further advance its environmental improvement activities and make an even greater contribution to society.

Societal Needs

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

Developing New Products and Technologies That Contribute to Environmental Improvement

The Kurita Group is committed to developing new products and technologies, focusing on the themes it has set based on the understanding of its customers' needs and challenges in the field of water and the environment.

We identify annual results achieved in the aspect of "societal needs" in terms of the number of technologies, products, and services that we developed to contribute to environmental improvement and the environmental benefits that we brought to customers in the fiscal year. We quantify the environmental benefits to customers based on the environmental impact reductions that our customers will achieve at their factories and other sites by adopting the new products and technologies that we have developed focusing on specific themes.

New products and technologies developed to contribute to environmental improvement

Type of benefit	New products and technologies
CO ₂ emissions reduction	<ul style="list-style-type: none"> Boiler water treatment chemicals with enhanced iron dispersibility Corrosion inhibitor used for the economizer of a boiler RO membrane fouling control chemicals used for seawater desalination systems. Gas concentration/refinement equipment for the use with methane gas generated from the fermentation of wastewater and other waste
Waste reduction	<ul style="list-style-type: none"> New anaerobic biological treatment process using the anaerobic bacteria carrier for wastewater treatment of the chemical plants. New aerobic biological treatment process that uses protozoa to reduce the generation of sludge. Photo resist remover recycling systems used for semiconductor wafers
Wastewater treatment	<ul style="list-style-type: none"> Technology to decompose cyanogens contained in wastewater
Soil and groundwater remediation	<ul style="list-style-type: none"> Soil remediation technology to accelerate the purification of soil contaminated by chlorinated ethylenes

Environmental benefits brought to customers

Type of benefit		
CO ₂ emissions reduction (ton)	Waste reduction (ton)	Wastewater treatment (1,000 m ³)
24	5,076	51

(Results in Fiscal Year ended March 2012)

Examples of new products

Boiler Water Treatment Chemicals with Enhanced Iron Dispersibility: Energy Conservation through the Recovery of High Iron-Content Steam Condensate

At factories, boilers are used to heat water to generate steam, which is used for heating purposes, and the recovery and reuse of the high-temperature condensate of used steam conserves the amount of energy needed by boilers, specifically by reducing the consumption of boiler fuel. Returning boiler steam condensate to the boiler, however, risks causing a decrease in thermal efficiency, corrosion and other problems, because the condensate is made from the steam of water that contains iron eluted from the boiler pipe, and thus has a higher concentration of iron. The iron contained in the condensate will in turn attach to the inner surface of the boiler. Because of this, factories were able to recover only a small portion of steam condensate, or none at all.

In response to this problem, Kurita Water Industries has developed boiler water treatment chemicals that effectively prevent iron from attaching on the inner surface. With these chemicals, the concentration of iron in boiler water can be increased to triple the level possible with conventional chemicals. This makes it possible to increase the recovery of high-temperature steam condensate and contributes to energy conservation. For customers in the medical and food industries, who are particular about the safety of their products, we supply products made using only food additives.



Iron compounds in supply water are attached to the heat-transfer surface of a test tube



Attachment of iron compounds to the heat-transfer surface of a test tube is prevented by the new treatment chemicals with enhanced iron dispersibility

The BIOPLANET® SR Aerobic Biological Treatment Process: Reducing the Generation of Sludge by the Use of Microanimals

At a lot of factories, including food factories, wastewater, which contains organic matter, is treated by the aerobic biological treatment method. This method uses microorganisms such as bacteria, which eat organic matter, to degrade organic matter. Although it is a highly efficient and economical treatment method, it also causes a serious problem of excess sludge, which is generated as a result of the propagation of bacteria fed by organic matter.

In response, Kurita Water Industries has developed the BIOPLANET® SR wastewater treatment process, which reduces the generation of excess sludge by making use of the food chain mechanism. The technology developed by the company has made it possible to reduce the generation of excess sludge by up to 75% by using minute animals, such as rotifers, which help suppress the propagation of bacteria by eating them. The carrier developed by the company contains both bacteria and microanimals at high density, which enables high-load operation of the treatment system.

The system has already been adopted by customers in the food industry.



Reducing generation of excess sludge by using the food chain



Carrier of minute animals

Soil Remediation Technology to Accelerate the Purification of Soil Contaminated by Chlorinated Ethylenes

At factories, trichloroethylene and other hazardous chlorinated ethylenes had been commonly used as cleaning agents until around the 1980s. Subsequently, soil and groundwater contamination due to these chemicals became a major social problem, leading many factories and former factory sites to decontaminate the soil and groundwater on their site.

"Bioremediation" is a remediation method that uses microorganisms living in the soil to decompose chlorinated ethylenes into non-hazardous ethylenes. Compared with physical treatment, such as removing contaminated soil by excavation and pumping up contaminated groundwater, bioremediation is a low-cost decontamination process that can be completed within a short period. Bioremediation, however, was not applicable to sites where microorganisms that could decompose chlorinated ethylenes did not exist in the soil.

In response, Kurita Water Industries artificially cultivated Dehalococcoides bacteria, which can decompose chlorinated ethylene, for the first time in Japan and developed a groundbreaking technology to inject the bacteria thus cultivated in concentrated amounts into groundwater together with nutritional supplements. This technology has made the bioremediation method applicable also to soil without the microorganisms and has led to the reduction of the

bioremediation period by up to a half.

The technology is verified to conform to the guidelines on the use of microorganisms for bioremediation* and proven to be safe for other living creatures and ecosystems.

* The guidelines on the use of microorganisms for bioremediation were set jointly by the Ministry of Economy, Trade and Industry and the Ministry of the Environment of Japan to ensure that microorganisms would be used safely in bioremediation and such use would not have any adverse impact on the ecosystems of other living creatures. Kurita Water Industries' technology using Dehalococcoides bacteria became the first technology of its kind to be verified as conforming to the guidelines.



Microorganism injection system



Injecting microorganisms into soil to break down chlorinated ethylenes

Customer Needs

The Kurita Group helps customers reduce their environmental impacts through its business.

Fiscal 2012 Environmental Benefits to Customers

The Kurita group calculates the environmental impact reductions that customers have achieved by adopting the Kurita Group's improvement proposals as "environmental benefits to customers."

The fiscal 2012 figures shown below are calculated using the orders received from customers during the period from April 2011 to March 2012. They are estimates ("deemed effect") made by calculating the total annual difference between the levels of the customers' environmental impact before and after adopting our proposals based on the environmental impact reductions suggested in the specifications and written proposals we submitted to the customers who had placed orders to us.

Type of benefit		Environmental benefits to customers		
 CO₂ Fuel use reduction by the use of water treatment chemicals for boilers and cooling facilities, and water conservation by the use of wastewater reclamation systems		CO ₂ emissions reduction	108,676 tons per year	On average, a single household emits about 4,850 kg* ¹ of CO ₂ per year. The emissions reduction of 108,676 tons is therefore equivalent to the total amount of CO ₂ emitted by about 22,000 households in one year.
		Water savings	36,884,000 m³ per year	On average, a single household consumes about 300 m ³ * ² of water per year. A 36,884,000 m ³ saving of water is therefore equivalent to the total amount of water consumed by about 123,000 households in one year.
 Waste Reduction of sludge by the use of dehydration agents and anaerobic wastewater treatment facilities, and waste reduction by the introduction of drying machines		Waste reduction	143,484 tons per year	On average, a single household generates about 1,450 kg of waste* ³ per year. The waste reduction of 143,484 tons is therefore equivalent to the total amount of waste generated by about 99,000 households in one year.
 Substances of concern Removal of hazardous substances by the use of heavy metal stabilizers, and reduction in the use of chemicals through replacement with a regeneration-type demineralizer		Reduction of substances of concern	4,013 tons per year	
 Water pollutants Reduction in the amount of wastewater treated by wastewater treatment systems		Wastewater treatment	25,618,000 m³ per year	The standard size of a swimming pool is 50 m long, 20 m wide, and 1.7 m deep, and its volume is 1,700 m ³ . The 25,618,000 m ³ of wastewater treated is therefore equivalent to the volume of water from about 15,000 swimming pools.
 Soil and groundwater pollutants Reduction in the volume of contaminated soil and groundwater removed by excavation or treated by in-situ purification		Remediation of contaminated soil	821,000 m³ per year	The remediation of 821,000 m ³ of contaminated soil (1 m ³ of soil weighs 1.8 tons) is equivalent to about 148,000 10-ton truckloads.

CO₂ conversion factors used for the calculations:
 Electricity: 0.351 kg-CO₂/kWh, gas: 2.23 kg-CO₂/m³, Class-A heavy oil: 2.71 kg-CO₂/ℓ, tap water and sewage water: 0.65 kg-CO₂/m³

*1. According to data on CO₂ emissions from households provided by the Japan Center for Climate Change Actions
 *2. According to a document on tips to save water provided by the Bureau of Waterworks, Tokyo Metropolitan Government
 *3. Amount of waste generated by a household of four members, which is calculated based on per-capita waste generation shown in the Annual Report on the Environment, the Sound Material-Cycle Society and the Biodiversity in Japan 2011 (released by the Japanese Ministry of the Environment in June 2011)

The Kurita Group's Business

The Kurita Group is engaged mainly in two types of business: the water treatment chemicals business and the water treatment facilities business.

Water treatment chemicals business

Manufacture and sale of water treatment chemicals

- Boiler water treatment chemicals
- Cooling water treatment chemicals
- Process treatment chemicals (for the petrochemical, steel, and pulp and paper industries)
- Wastewater treatment chemicals
- RO membrane water treatment chemicals
- Equipment and systems for water treatment chemicals (chemical dosing systems, remote water quality management systems, etc.)
- Water treatment effect monitoring/diagnosis services

Sale of boiler systems and related maintenance services

Water treatment management for boiler and cooling water systems

- Contract-based services (steam supply contracts, comprehensive management contracts for factories, etc.)

Water and environmental analysis



Water treatment facilities business

Manufacture and sale of water treatment facilities

- Ultrapure water production systems
- Water treatment systems
- Wastewater treatment systems
- Wastewater reclamation and reuse systems

Maintenance services

Supply of ultrapure water

Water treatment facilities operation and maintenance

Chemical cleaning

Tool cleaning

Soil and groundwater remediation

Manufacture and sale of general household products

- Water purifiers



Customer Needs

Environmental Improvement Examples

Examples of Initiatives That Brought Environmental Benefits to Customers' Factories and Other Sites

Reducing Waste by Onsite Treatment of Waste Liquid

Akita Epson Corporation

Akita Epson Corporation, which manufactures mainly printer heads, crystal oscillators, and quartz sensors, is fostering environmental improvement activities based on the environmental policies shared among Epson Group companies. Committed to conducting business operations and environmental improvement activities in a compatible manner, the company continues to implement measures to reduce the environmental impacts of its production and utility facilities, believing that reducing energy use and waste generation will lead to an increase in productivity.

In cooperation with the customer, Kurita Water Industries' Facilities Division conducted surveys and made thoroughly researched ways to help the customer decrease their environmental impact while also achieving cost reductions. As a result, the division identified the most effective means for the customer to attain the dual targets, which was to treat waste alkali liquid at the customer's own wastewater treatment facilities to lower the concentrations of pollutants contained in the liquid to below the regulatory standards ready for discharge to the environment. The division built up



Waste alkali liquid treatment system

a new treatment system for this purpose, receiving support from Kurita Water Industries' Research & Development Division, and proposed the introduction of this system to the customer. Subsequently, the customer was able to reduce their waste generation by 400 tons a year as a result of adopting the system proposed by the Facilities Division.

Waste reduced by 400 tons

Customer's Voice

We made a substantial reduction in waste as a result of our work with Kurita, from the survey and examination stage through to the establishment of a method to operate and maintain the treatment system. In addition to reducing our environmental impact and costs, we were also able to increase our work safety by cutting out the need to ask an external company to dispose of waste alkali liquid. We welcome Kurita to continue making cost-competitive improvement proposals to us.



Kazuhiro Sato (left)
QD Manufacturing Group,
QD Manufacturing Dept.
Kazuyoshi Fujiwara (center)
Manager, QD Manufacturing
Group, QD Manufacturing Dept.
Katsuro Abe (right)
QD Manufacturing Group,
QD Manufacturing Dept.

Reducing Waste by Flocculating Sulfur Oxide Particles

Idemitsu Kosan Co., Ltd., Hokkaido Refinery

Idemitsu Kosan Co., Ltd. is mainly engaged in oil refining and in the manufacture and sale of petrochemical products. The company is reducing the environmental impact of its business activities, aiming to contribute to building a "society with harmony between the economy and the environment." Its Hokkaido Refinery collects sulfur oxide particles contained in the gas exhausted from the oil manufacturing process in water with a filter, and uses diatomaceous earth as a filter aid. The layer of diatomaceous earth placed on the filter surface is eventually disposed of as waste, together with solids remaining on the filter.

The customer was looking for a method to cut use of diatomaceous earth as a way to reduce the total amount of waste. Kurita Water Industries' Chemicals Division proposed that the customer use water treatment chemicals to flocculate sulfur oxide particles and make it easier for the diatomaceous earth filter to collect particles. As a result of going through with this proposal, the Hokkaido Refinery has reduced the amount of diatomaceous earth used for filtering of the particles by



Flue-gas desulfurization equipment

almost half, which has led to a reduction of 380 tons in the amount of diatomaceous earth disposed of as waste.

Generation of waste reduced by 380 tons

Customer's Voice

We had been thinking that use of diatomaceous earth should be reduced by optimally minimizing the use of the material in proportion to the concentration of solids in the wastewater. The method to reduce the use by injecting water treatment chemicals was thus an innovative idea for us. The idea of reducing the use of diatomaceous earth as a filter agent by flocculating the particles to be filtered was logical and proved to be effective in both desktop examinations and demonstration tests.

We therefore decided to go through with the proposal and as a result achieved our reduction target. We will continue to cooperate with Kurita to attain the ambitious target of reducing the use of diatomaceous earth to zero.



Takashi Inoue
Manager,
Refining Section No. 2
Hajime Ishimoto
Refining Section No. 2

Reducing the Use of Chemicals by Improving the Wastewater Treatment Method

Suntory Products Limited, Haruna Plant

Suntory Products Limited, which manufactures soft drinks as a Suntory Group company, is committed to environmentally sustainable management based on the basic environmental principles of the Group, which upholds "Bringing Water to Life" as its corporate message. The company's Haruna Plant complies with voluntary wastewater criteria in addition to compliance with the regulatory standards, aiming to manage the quality and minimize the environmental impact of the wastewater discharged from the plant. As a means to continue meeting the criteria, the plant is using inorganic coagulant.

The plant needed to reduce the use of coagulant while steadily reducing the environmental impact of the discharged wastewater. Kurita Water Industries' Chemicals Division proposed that the plant use unique organic coagulant to enhance the function of the inorganic coagulant, change its method of operating and managing the coagulation sedimentation equipment, and automate chemical injection control in linkage with the



Coagulation sedimentation equipment

management indicators. As a result of implementing these proposals step by step, the customer has achieved a 25% reduction in the use of chemicals, including the inorganic coagulant.

Use of chemicals reduced by 25%

Customer's Voice

Giving priority to reducing our environmental impacts, we tended to use the inorganic coagulant in relatively large volumes, but by adopting the proposals, we can now manage the injection amount and have thus reduced usage. In addition to giving this great merit, the adoption of the proposals also helped us establish an optimal method to operate and manage the wastewater treatment facilities and reduce the use of pH adjusting agent by half. We hope that Kurita will continue making high-quality improvement proposals to us.



Ryusei Hashimoto
Manager,
Engineering Group
Masahiro Koike

Reducing the Use of Boiler Fuel via Steam Condensate Recovery

J-Oil Mills, Inc., Shizuoka Plant

J-Oil Mills, Inc. is mainly engaged in the manufacture, processing and sale of fat and oil. The company attributes importance to "safety, health and the environment" in its business operations and is implementing an energy conservation project across its plants, including measures to reduce CO₂ emissions. As one of energy conservation measures, the Shizuoka Plant had been recovering boiler steam condensate but faced mixing of oil in the condensate. To resume the recovery of the steam condensate, the plant was required to implement effective measures to prevent mixing.

In response, Kurita Chemicals Kanto, Kurita BMS, and Kurita Water Industries' Chemicals Division cooperated to propose the use of a system to temporarily store the recovered condensate to check for oil and pollutants in the condensate and then return it to the boiler. As a result of adopting this proposal, the Shizuoka



Steam condensate recovery system

Plant is now able to recover high-temperature condensate, leading to a 335-ton reduction in the use of boiler fuel gas per year (CO₂ equivalent).

CO₂ emissions reduced by 335 tons

Customer's Voice

I highly appreciate that we were able to resume the recovery of steam condensate thanks to the adoption of the proposal. At present, we are recovering the condensate only from part of the production process. The proposed system, however, can treat steam condensate recovered from other processes as well, and I hope that Kurita will support us in recovering more condensate by using the system.

The plant is using a vast amount of steam in the production process and I expect Kurita to make us more improvement proposals by reviewing the entire processes innovatively from the viewpoint of water treatment.



Futoshi Shimomura
Acting Manager,
Engineering Dept.

Examples of Initiatives That Brought Environmental Benefits to Customers' Factories and Other Sites

Conserving Energy by Preventing the Attachment of Dust to Fans

Sumitomo Metal Industries, Ltd., Kashima Steel Works

Sumitomo Metal Industries, Ltd. is mainly engaged in the manufacture and sale of steel plates and architectural materials. The company is committed to reducing CO₂ emissions generated within the manufacturing process and also makes contributions to CO₂ emissions reduction by providing lighter and more durable products. The Kashima Steel Works needed to reduce the use of electricity in response to the government's request to reduce power use over summer. At the works' No. 2 Steel Making Plant, water was sprayed on fans used for the exhaustion of gas from the converter furnace in order to prevent the attachment of fine dust to the fans and resulting vibrations. The water resistance, however, caused a rise in the use of power.

In response, Kurita Water Industries' Chemicals Division proposed the use of water treatment chemicals that effectively trapped dust to reduce the amount of water sprayed, thereby curbing the use of energy. As a result of adopting this proposal, the plant is now able to prevent dust from attaching to the fans using half the amount of water, thereby



Converter furnace

reducing water resistance and the use of electricity by 1,238,000 kWh per year, which is equivalent to 438 tons in terms of CO₂ emissions.

CO₂ emissions reduced by 438 tons

Customer's Voice

In the past, when we noticed the fans vibrating, we had to suspend operation of the equipment in order to remove dust from them. As a result of accepting the proposal, the fans seldom vibrate now, and thanks to this we have achieved energy conservation, stabilization of operations, and a reduction in work. I therefore highly appreciate the proposal. However, the cooling tower and other devices are still stained by dust and I hope that Kurita will research new measures that can be adopted across the works.



Keiichi Nishimura
Supervisor, No. 2 Steel Making Plant, Steel Making Dept., Steel Sheet, Plate & Structural Steel Company

Reducing the Use of Electricity by Optimizing Installed Pure Water Manufacturing System

Toppan Electronics Products Co., Ltd., Niigata Plant

Toppan Printing Co., Ltd. is engaged in a range of businesses capitalizing on its know-how in the field of printing, including manufacture and sale of anti-counterfeit IC cards and other electronics products. The company is conducting environmental activities based on the Toppan Group Declaration on the Global Environment. Toppan Electronics Products Co., Ltd. serves as the electronics division of Toppan Printing. Its Niigata Plant has faced the need to reduce its overall electricity consumption following a request from the central government to conserve power over summer in line with reduced power generation.

In response, Kurita Water Industries' Facilities Division cooperated with Toppan Techno Co., Ltd., which is engaged in facilities management at the Niigata Plant, to optimize the pure water manufacturing system installed at the plant a decade ago. Specifically, the division made a proposal to reduce consumption of electricity by major



Pure water manufacturing system

devices from 600 kW to 300 kW by decreasing or downsizing the power-consuming pumps, introducing inverters, and by changing the operation method. As a result of adopting the proposal, the plant reduced its power use substantially and CO₂ emissions by 1,000 tons a year.

CO₂ emissions reduced by 1,000 tons

Customer's Voice

By adopting Kurita's proposal, we were able to achieve greater-than-expected results while also getting rid of the critical risk of suspending manufacturing due to a power shortage. We are also grateful to Kurita for helping us improve the equipment as initially planned, despite the shortage of devices due to the aftereffects of the mega earthquake. We still need to continue implementing energy conservation measures, also for cost reduction, and hope that Kurita will proactively make improvement proposals to us.



Daisuke Ishii
Chief of the Niigata Color Filter Team, Production Technology Dept., Manufacturing Management Dept., Electronics Division, Toppan Printing Co., Ltd.

Haruo Hirono
Chief of Dept.1, Facilities Dept., Toppan Techno Co., Ltd.

Reducing the Use of Chemicals by Introducing an Electrodeionization System

Tanaka Kikinzoku Kogyo K.K., Iwate Plant

Tanaka Kikinzoku Kogyo K.K. is mainly engaged in the manufacture and sale of precious metal products for industrial use. The company is committed to minimizing the environmental impacts of its business activities by setting and implementing in-house criteria that require a reduction in emissions of environmental pollutants to at least half the levels set by related environmental laws and regulations. The company's Iwate Plant, where motor-related clad materials are produced, faced problems due to the aging of the demineralizer used in the product cleaning process, including problems regarding the peripheral machines and increases in the ion exchange resin replacement frequency. The plant therefore needed to make it possible to supply pure water in a stable manner while reducing the amount of chemicals used for the regeneration of ion-exchange resins.

In response, Kurita Water Industries' Facilities Division proposed that the plant update its current system to an electrodeionization system, which



Electrodeionization system

electrically regenerates ion-exchange resins. As a result of adopting this proposal, the customer consequently reduced its use of chemicals by 103 tons per year.

Use of chemicals reduced by 103 tons

Customer's Voice

We highly appreciate the proposal, because it has eliminated our need for using chemicals and worries about the shortage of pure water, which is indispensable for our manufacturing activities. The introduction of a safe system that does not require chemicals has also helped us stabilize operation of the plant. Moreover by updating the wastewater treatment facilities, we can now internally treat the wasted cleaning agent that contains oil, which was disposed of as industrial waste in the past. The new facilities will make it possible for us to reduce the disposal of the liquid as industrial waste almost to zero. Kurita deeply understands the usage of water by our plant, and we expect the company to continue making proposals to help us reduce our environmental impact.



Marohito Sakoda
Manufacturing Section

Kimiya Abe
Environment Manager

Reducing Waste Thanks to a New Yield Improver

Nippon Paper Papyrus Co., Ltd., Harada Mill

Nippon Paper Papyrus Co., Ltd. mainly manufactures and sells paper for books and cigarette paper. The company is reducing its environmental impact toward the achievement of its parent company Nippon Paper Group, Inc.'s Green Action Plan 2015. The company's Harada Mill is working to reduce the amount of materials in its wastewater using an indicator known as the "wasted material rate" deeming it important to improve yield to achieve both higher productivity and a smaller environmental impact. The mill was using a low-molecular yield improver for products manufactured from raw materials as a high-molecular yield improver could adversely affect the quality of products. However, use of the low-yield improver made it difficult to bring down the wasted material rate.

Kurita Water Industries' Chemicals Division stepped in and proposed use of a new yield improver containing both low-molecular and high-molecular coagulants. The customer adopted the proposal and decreased its wasted material rate by 3% without sacrificing product quality, which also led to a reduction in the use of paper materials (282 tons in CO₂ equivalent).



Paper machine

CO₂ emissions reduced by 282 tons

Customer's Voice

We were able to achieve the targeted waste material rate by adopting Kurita's proposal. Their work has been highly evaluated internally and we are indeed satisfied with the results. It is essential for a paper manufacturing company to reduce materials waste and we hope Kurita will continue making improvement proposals to help us reduce our environmental impact and increase productivity.



Tokuzo Minakuchi (left)
Researcher, No. 1 Manufacturing Section, Manufacturing Dept.

Hidetaka Kato (center)
General Manager, Manufacturing Dept.

Shouichi Hirano (right)
Researcher, No. 2 Manufacturing Section, Manufacturing Dept.

Examples of Initiatives That Brought Environmental Benefits to Customers' Factories and Other Sites

Reducing Discharge of Wastewater to Zero through Recovery and Reuse

Metek Kitamura Co., Ltd., Tokushima Plant

Metek Kitamura Co., Ltd. is mainly engaged in the plating of electronics products. The company aims to reduce the amount of wastewater discharged outside its factories and those of its affiliates to zero both in Japan and overseas.

The industrial park in Tokushima Prefecture, where the company was planning to establish the Tokushima Plant, is located near a branch of Yoshino River, which is a source of drinking water for local areas. The company was looking for a way to achieve zero wastewater discharge.

Kurita's Facilities Division proposed that the Tokushima Plant introduce a wastewater treatment system that would reduce the discharge of wastewater to zero by enabling the factory to do the following: treat wastewater from the production process through coagulation and then filter pollutants contained in it by using membrane treatment equipment to reclaim and reuse as much wastewater as possible; increase the concentration of the separated pollutants using an evaporator;



Wastewater recovery system

and commission disposal of the highly concentrated pollutants to a waste disposal company. As a result of introducing this system, the factory has reduced its discharge of wastewater (about 129,000 m³ per year) to zero.

Treatment of 129,000 m³ of wastewater

Customer's Voice

The Tokushima Plant has become a model plant that showcases our company's strong commitment to environmental protection. The wastewater treatment system has enabled us to reuse water in a stable manner and reduce the discharge of wastewater to zero. I believe this achievement has provided a great asset for the future business growth of the company and all its group companies. I want Kurita to continue supporting us in the operation and maintenance of the system.



Kiyoshi Takayama
Executive Officer and
Manager of the Production
Dept.

Contributing to the Stable Treatment of Wastewater and the Reduction of Waste

Watami Merchandising Co., Ltd., Higashimatsuyama Center

Watami Merchandising Co., Ltd. purchases foodstuffs and cooks them to supply prepared meals to restaurants and boxed lunches to nursing care facilities. The company is conducting environmental improvement activities to make the environment and the economy compatible based on Watami Group's environmental declaration. In opening the Higashimatsuyama Center as a new base following the expanded delivery of boxed lunches to the elderly, the company was required to not only introduce a system to treat wastewater from production process but also work on reducing generation of other waste.

Kurita's Facilities Division proposed introduction of a system to reduce the generation of waste by using minute animals based on the food chain mechanism. As a result of adopting the proposal, the center treated 19,225 m³*1 of wastewater and reduced the generation of waste by 47%*2.



Wastewater treatment system

Treatment of 19,225 m³ of wastewater

Waste reduced by 47%

*1. Amount of wastewater treated from Aug. 2011 to June 2012

*2. Relative to generation of waste at a box lunch preparing base of a similar size

Customer's Voice

The Watami Group is certified as an Eco-First company by the Japanese Ministry of the Environment, and in line with the policies outlined in our Eco-First declaration, we asked Kurita to deliver a system to meet our needs. The center commissions waste disposal only several times a month, while other box lunch preparing bases commission it twice every week. This is thanks to the introduction of the system. Kurita also regularly gives us advice on the operation and management of the wastewater treatment system, and I hope that the company will make even more environmental impact reduction proposals to us.



Ryuuji Nagai
Engineering and Production
Technology Manager,
Cooking Dept.

Examples of Environmental Benefits to Customers

Multiple factories	CO₂ emissions reduction: 1,395 tons/year
The factories promoted use of returnable containers for water treatment chemicals, thereby reducing CO ₂ emissions from the incineration of containers.	
Pharmaceutical factory	CO₂ emissions reduction: 1 ton/year
The factory improved the wastewater treatment system to use treated wastewater to supply pressurized water for pressure floatation treatment, thereby reducing use of tap water.	
LCD plant	Waste reduction: 410 tons/year
The plant removed chemical substances and stains attached to some parts of the LCD manufacturing equipment to prolong the lives of the parts, thereby reducing the generation of waste.	
Chemical factory	Waste reduction: 1,780 tons/year
The factory reduced waste by introducing a system to process and dry excess sludge.	
General households	CO₂ emissions reduction: 26,102 tons/year
The use of both tap water and gas for heating was reduced at general households by introducing water-saving shower heads developed and sold by Kurita.	
Chemical factory	CO₂ emissions reduction: 199 tons/year
The factory used water treatment chemicals to prevent the attachment of stains to the freezer's heat exchanger, thereby maintaining high heat exchange efficiency and reducing electricity usage.	
Ironworks	CO₂ emissions reduction: 7,020 tons/year
The works added a chemical moisturizer to the water to be sprayed onto the ore yard to suppress the spread of dust, thereby reducing the amount of water required.	
Food factory	CO₂ emissions reduction: 535 tons/year
The factory adopted boiler water treatment chemicals to increase the concentration of silica in boiler water, thereby reducing the discharge of water from the boiler and the use of boiler fuel.	
Food factory	CO₂ emissions reduction: 113 tons/year Waste reduction: 204 tons/year
The factory treated organic wastewater using an anaerobic wastewater treatment system that suppressed generation of excess sludge. It also used methane gas generated from the wastewater treatment process as boiler fuel to reduce both CO ₂ emissions and waste generation.	
Semiconductor plant	CO₂ emissions reduction: 120 tons/year
The plant upgraded its inorganic wastewater treatment system to make it possible to circulate the sludge and increase its concentration to ultimately reduce waste generation.	

Glossary of Terms

Diatomaceous earth	Rock composed of fossilized remains of diatoms (a type of algae). It has numerous small pores on the surface and is used as a filter aid to collect fine particles.
Floc	A cotton-like coagulated solids in water, collected by coagulant.
Inorganic coagulant	A chemical agent that collects suspended matter in water and coagulates them into larger particles.
Organic coagulant	A chemical agent that can coagulate a greater volume of suspended matter in water than inorganic coagulant.
Steam condensate	Liquid generated by steam condensation.
Converter furnace	Furnace used to convert pig iron to steel by removing impurities such as carbon. Air blown into the furnace causes the generation of gas inside the furnace.
Demineralizer	Equipment to demineralize water by removing suspended matter, salts, and organic matter contained in the water.
Ion-exchange resin	A type of synthetic resin that exchanges ions in water and its own ions, which is regenerated for reuse when there are no more ions to be exchanged.
Yield improver	Water treatment chemicals that help improve the yield of products from the same amount of materials.
Sludge	Sludge refers to the pollutants in wastewater that have precipitated or floated up to the surface of the water to form a muddy film. Generally, sludge is dehydrated to reduce its volume and weight and then disposed of as waste.
Eco-First company	Company certified as an Eco-First company under the Eco-First program implemented by the Japanese Ministry of the Environment to encourage companies to lead environmental protection initiatives in the industry.

Internal Change

We are working to reduce our own environmental impact.

Results in Fiscal Year Ended March 2012

Reduction in Per-Unit Energy Consumption and CO₂ Emissions

To ensure compliance with the Act on Rational Use of Energy of Japan, the Kurita Group made efforts to reduce its per-unit energy consumption as “specified

business operators” and “designated energy management factories” as provided for under law, and to reduce CO₂ emissions as a Group.

CO₂ Emissions

Category	Target (ton)	Result (ton)
A production sites*1	Below 154,675	149,604
B production sites*2	Below 3,874	3,843
Non-production sites*3	Below 5,187	4,673
Total	Below 163,736	158,121

*1. A production sites: Kurita Group sites that are “specified business operators and designated energy management factories” under the Act on Rational Use of Energy

*2. B production sites: Kurita Group companies and sites that manufacture water treatment chemicals and systems

*3. Non-production sites: Kurita Group companies and sites other than those listed above

As for the A production sites, energy use increased at some sites, but decreased at the ultrapure water supply sites due to optimization of the operation and management of the water treatment facilities. As a result, the CO₂ emissions reduction target was achieved.

At the B production sites, energy use increased due

to the increased recycling of ion-exchange resins but the CO₂ emissions reduction target was achieved thanks to the power saving initiatives implemented in summer.

At the non-production sites, consumption of energy was substantially reduced thanks to power saving initiatives and the Kurita Group achieved its CO₂ emissions reduction target as a whole.

Waste Reduction

Each Group company and site strived to reduce generation of waste to below the level of the previous fiscal year.

Waste Generation

Category	Target (ton)	Result (ton)	Recycling rate (%)
C production sites*4	Below 57,737	45,584	59.2
D production sites*5	Below 1,246	1,310	68.5
Non-production sites*6	Below 311	287	43.7
Total	Below 59,293	47,181	59.4

*4. C production sites: Kurita Group companies and sites where the amount of waste generated is influenced by the production activities of specific customers

*5. D production sites: Kurita Group companies and sites engaged in R&D and the manufacture of water treatment chemicals and facilities

*6. Non-production sites: Kurita Group companies and sites other than those listed above

At the C production sites, waste was substantially reduced after wastewater treatment facilities and the operation and management methods were improved at the ultrapure water supply business sites.

At the D production sites, efforts were made to reduce waste by recycling metals as valuable resources and reusing packaging materials, but due to a temporary increase of waste caused by the disposal of unnecessary laboratory equipment and aged

facilities, the waste reduction target was not achieved.

At the non-production sites, the target was achieved thanks to the efforts of each and every employee despite a temporary increase in waste due to the disposal of unnecessary office equipment.

The Kurita Group as a whole achieved its waste reduction target, thanks to substantial reduction achieved by the C production sites.

We fostered sorting of waste to improve the recycling rate and cooperated with waste disposal companies to recycle metals and reuse waste as pavement materials. The ultrapure water supply sites substantially

reduced the generation of waste, which resulted in a decrease in the amount of waste recycled. As a result, the entire Group’s recycling rate dropped from 67.9% in fiscal 2011 to 59.4%.

*The recycling rate was greatly changed from the rate described in *Kurita Group Environmental Report 2011* (24.2%) due to an increase in the number of Group companies included in the tabulation target.

Environmental Improvement Examples

Power Saving at the Headquarters of Kurita Chemical Manufacturing Ltd.

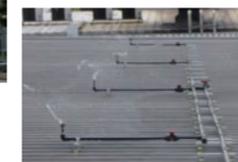
The headquarters of Kurita Chemical Manufacturing (Gokamachi, Sashima-gun, Ibaraki) provides a manufacturing base for the Kurita Group’s water treatment chemicals to be sold mainly in East Japan. The company cut its power use during the peak hours pursuant to Article 27 (Restriction on Use of Electricity) of the Electricity Business Act of Japan.

Specifically, the company operated its manufacturing facilities from 6:00 a.m. to 3:00 p.m. during the period from July 1 to September 22, replaced conventional lamps with LED lights, enhanced the building’s heat insulation capabilities, and suppressed a rise in room temperatures by spraying water onto the roof. It also introduced an alarm system to detect any sharp increases in its power consumption.

Through these measures, the company successfully cut its use of electricity during peak hours and reduced total annual power use by 165,000 kWh from the previous fiscal year.



Headquarters of the company



Water spraying equipment installed on the roof

Waste Reduction at the Kameyama Sub-branch of Kurita Water Industries Ltd.

The Kameyama Sub-branch of Kurita Water Industries is one of the Kurita Group’s ultrapure water supply business sites. The site supplies manufactured ultrapure water to its customers’ LCD factories and also treats wastewater generated from the production processes of the factories. At the site, in order to meet the requests from highly environmentally conscious customers, a range of water treatment chemicals are input into the wastewater to thoroughly remove pollutants so that the water can be recovered and reused. The pollutants thus removed are disposed of as waste.

The Sub-branch reviewed its wastewater treatment facilities operation method to further reduce waste. Based on the recognition that part of the water treatment chemicals injected into wastewater would eventually be disposed of as waste and in reference to actual operation data, the site scientifically clarified the interrelations between the use of water treatment chemicals and the quality of treated wastewater to minimize the amount of chemicals used. As a result it achieved a substantial waste reduction (13,200 tons or more per year).



Wastewater treatment facilities

Targets for Fiscal Year Ending March 2013

	Target	Approach
Energy use	Reduce per-unit energy consumption by 1% or more annually in fiscal 2010 onwards	<p>A production sites Each of the specified business operators and designated energy management factories within the Group will set a per-unit energy consumption reduction target in a crude oil equivalent and implement measures to achieve the target.</p> <p>B production sites and non-production sites Each site will set a reduction target for one or two items (electricity and/or gas) according to its features and implement measures to achieve the target.</p>
Waste generation	Below the previous fiscal year level	Each site will set the reduction target and continue implementing measures to achieve it.

Environmental Management

In order to execute a PDCA cycle for environmental improvement activities more effectively, we have built up an organizational system to promote the activities across the Group.

Environmental Management System

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 related issues.

● PDCA Cycle for Environmental Improvement Activities



● Introduction of Environmental Management Systems

Kurita Water Industries has been fostering the establishment and operation of ISO 14001-certified environmental management systems at its own sites and Group companies as part of its environmental improvement activities.

Acquisition of ISO 14001 Certification by the Kurita Group

Company name	Site	Acquired date
Kurita Water Industries Ltd.	Shizuoka, Tsuruga, Toyoura, and Yamaguchi	July 1998
Kurita Buil-Tech Co., Ltd.		March 2002
Kurita Chemicals Oita Ltd.		June 2002
Kurita Chemical Manufacturing Ltd.	Head office and Ako	March 1997
Kuritaz Co., Ltd.		Feb. 2000
Kuritec Service Co. Ltd.	Head office and Tobu, Mie, Iga, Harima, and Oita	Feb. 2003

● Organizational System for Promoting Environmental Improvement Activities



● Compliance with Environmental Laws and Regulations

In fiscal 2012, we received no administrative punishments for noncompliance with laws, regulations, or ordinances nor did we cause any large accidents that had an impact outside the company.

At the 98 sites included in our management target for chemical substances, waste and wastewater treatment systems, site managers carried out self-investigations. Moreover, the Environmental Improvement Promotion Committee members conducted onsite investigations at 29 sites. All of the sites that were recommended to make improvements based on the results of the investigations have implemented corrective measures as outlined in the improvement plan.

Major Environmental Laws That Govern the Business Activities of the Kurita Group

- Water Pollution Control Act
- Act on the Rational Use of Energy
- Act on Promotion of Global Warming Countermeasures
- 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 service Act
- Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof
- Soil Contamination Countermeasures Act

Supporting Surveys, Research and International Exchanges in the Fields of Water and the Environment

In 1997, the Kurita Group established the Kurita Water and Environment Foundation in order to help create and conserve a rich water environment by promoting science and technology. The Foundation became a public interest incorporated foundation in November 2009. 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 2012, the Foundation selected 49 research projects from among 382 applicants and awarded subsidies to selected applicants. Moreover, the Foundation granted prizes of excellence to researchers selected from among those who had received research grants from the Foundation in the past, in recognition of their outstanding research results and social contributions. In addition, the Foundation is supporting the commendation program (Kurita Award) implemented by the Japan Society on Water Environment to motivate young researchers and foster international exchange activities to contribute to the solution of water- and environment-related problems in Asia.



Subsidy granting ceremony held for fiscal 2012

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.



Environmental Management Evaluation Report

To: Kurita Water Industries Ltd.

Outline of the purpose of this report and implemented procedures

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 2012, through an evaluation of the environmental management efforts described in the report.

To examine how the Kurita Group's environmental management activities were planned and executed, and how environmental performance data resulting from these activities (which serve as a basis for publicly disclosed information) were evaluated and utilized, we interviewed Toshiyuki Nakai, president of Kurita Water Industries, questioned key persons at the company's head office and visited one of its corporate customers. We have also visited the Kurita Global Technology Center to check related documents, ask questions to persons in charge, and check whether the source documentation for publicly disclosed data is being handled systematically in a predefined manner.

Evaluation and comments

Fiscal year ended March 2012 was the final year of the company's medium-term management plan (MP-11). In Japan, the company has been fulfilling its social responsibility as an enterprise doing business in the field of water and the environment, in the face of the aftereffects of the Great East Japan Earthquake. We have been making contributions in the aspects of "societal needs" and "customer needs" mainly by proposing environmental impact reduction measures as a way of helping solve the energy shortage. The company is committed to fulfilling its social responsibility while recognizing the potential impacts of on society, and makes environmental impact reduction proposals that are inherently linked to an improvement in business quality.

As globalization progresses, the role that Kurita Water Industries is expected to play as a company engaged in the field of water and the environment has been increasing in importance. We expect that the company will further foster its initiatives in the aspect of "customer needs" in its global strategy, thereby making an even greater contribution to society.

The Kurita Group aims to reduce its use of energy and generation of waste as its main environmental improvement targets, and in fiscal 2012 began classifying its sites by business type, set a management indicator for the use of energy, and included more Group companies in its waste reduction targets to further foster the reduction activities. The Group is supporting its business divisions in setting their own targets and working to achieve them, and the activity results are now tabulated and summarized on a quarterly basis. In the future we expect that the Group will utilize its environmental accounting data to set indicators to promote its environmental improvement activities more efficiently. It can be evaluated that the Kurita Group has been steadily improving its environmental management.

Within the scope of our basic examination, we found no serious discrepancies with the calculation of environmental performance data.

<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 business activities. The customer, who was interested in reducing the environmental impact of its business activities, adopted the "closed system for wastewater from the plating process" proposed by Kurita Water Industries. The system has made it possible for the customer to reuse wastewater and reduce discharge to the local river to zero, which in turn helps prevent water pollution and reduce environmental impact. The system is expected to be released also in overseas markets, where needs for the system will increase, including Southeast Asia, which is facing difficulty securing a stable and safe water supply. The customer is highly satisfied with the system provided by Kurita Water Industries and the two companies have built up a good relationship of trust. The solutions that Kurita Water Industries has been proposing to its customers, capitalizing on its top-end technologies, demonstrate the strong linkage between the Kurita Group's business and its environmental improvement activities. The Group is expected to continue actively making proposals to its customers.

<The Kurita Group's environmental improvement activities>

In fiscal 2012, we visited the Kurita Global Technology Center, where we interviewed employees about their environmental improvement activities as researchers and developers, and looked at the results of the activities. The center, which is an R&D base, does not have much of a direct impact on the environment. Nonetheless, everyone there is required to have high awareness of the environment as essentially they are researching and developing technologies and products that will help their customers decrease their environmental impact. The Kurita Group has been holding regular events to outline its environmental report, and we expect that this event will also be held at the center as a way to help employees understand the importance of collaboration between research, development and sales staff in making further environmental improvements. The center's environmental activities are highly evaluated, but in the future will need to conduct activities also in the aspect of "global needs" as it deals with more overseas projects.

June 22, 2012

Institute for Environmental Management and Accounting

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

Hiroshi Okada (Senior Researcher and Professor at Hiroshima University of Economics)