

USHIO

Environmental Sustainability Report

2007



Lighting Edge Technologies

USHIO



“Jintoku—managerial virtue” and “Shatoku—corporate virtue” are now more important than ever for management and companies respectively.

Jiro Ushio
Chairman and Ushio Group Representative

Meeting any challenge with Ushio Power

Last year, I expressed my determination to implement CSR with reference to the words of Joseph Schumpeter: “The key to corporate success lies in innovative management, which requires putting inventions into action.”

I propounded the view that the key factors driving innovation are “environmental power”, “intellectual power (intellectual productivity)”, and “civil power (social productivity)”. In fiscal 2006, it was time for us to demonstrate these powers and sincerely fulfill our CSR. I still believe this to be true and I am more determined than ever to apply these strengths to face any challenge that arises.

Acting with a certain degree of trepidation

This year, with renewed resolve, I shall strive to implement those issues pertinent to social contribution and environmental protection.

The key word here is “Zhan Zhan Jing Jing” [trepidation], an expression recorded in the ancient Chinese “Shi Jing” [Book of Songs], a collection of poems in which one verse reads, “Fearful! Trembling! As if peering over a deep abyss, as if walking across thin ice.” Rather than implying that we should be terribly afraid, this means that we should act calmly, with discernment, as when facing

a deep abyss, and behave with a sense of delicacy, as when walking on thin ice. This is certainly true for a company facing the extremely delicate issues of social contribution and environmental protection.

Ushio should be an autonomous, virtuous company

“Autonomy” is a vital factor that I would like to instill in all Ushio employees. “Self-discipline” is the most essential aspect of CSR. Within the industry and corporate structure, helping and standing up for others has always been an integral part of Japanese culture. From now on, however, we must be autonomous and have the courage to admonish others if they break the rules. Adopting the attitude of reaching agreement without solving the problem is an outmoded way of thinking that is no longer acceptable in the modern world.

A corporation is not an organization created to satisfy the selfish desires of management. It must consider itself a public institution that contributes to society. In that sense, we must ensure that managerial virtue is instilled in management and corporate virtue is instilled throughout the company.

We will continue to pay heed to social opinion and look forward to hearing your unreserved evaluation.

Creating new values by improving environmental productivity with our partners.

Shiro Sugata
President and Chief Executive Officer
Chairman of the Environment Committee and Group Environmental Council



Improving environmental productivity with our partners

One of the toughest challenges recently facing corporate management worldwide concerns the environment. As epitomized by global warming, this will be a continuing theme for as long as we value life on Earth.

Regulations and standards pertaining to the environment influence corporate management in various ways, and society now demands more constructive solutions.

As a manufacturer of optical products for industrial applications, the Ushio Group will continue to proactively practice environmental management, which it considers to be as important as quality control, in anticipation of the future needs of society.

Up to the present day, we have developed and provided manufacturing methods and products that place the minimum stress on the environment through energy-saving and other measures. We have also expanded our environmental management practices with the establishment of recycling process technologies, the procurement of environment-friendly materials and parts (Green Procurement), energy-saving measures for all group companies, and efforts to achieve zero emissions.

Through close cooperation with our partners to further improve environmental productivity, our goal is for management to contribute to the development of a sustainable society.

New values born from fresh ideas

One example of our constructive approach towards environmental problems is “Green Procurement”, which we are expanding not only to the procurement of environment-friendly materials and parts (Green Materials Procurement), but also to the entire supply chain, from manufacturing to sales. In the future, we must strive for a qualitative enhancement of activities that cover not only measures to

eliminate hazardous substances, but also the management and control of content standards for such substances.

There are some products that, even though they contain hazardous substances, are indispensable for society. When providing these products, it is vital to always make the correct decisions while bearing the global environment firmly in mind.

This means not only making every effort to minimize the amount of hazardous substances used, such as by actively seeking out alternatives, but also taking into consideration opportunity cost and the future social costs of using substitute products.

Substituting non-hazardous alternatives for hazardous substances may invoke higher production costs, yet can cut the long-term costs for society while indemnifying the company against future risk.

Furthermore, setting the lofty target of simultaneously meeting environmental requirements and realizing profitable operation will call for a review of materials, production lines and the sales process. This in turn will increase the possibility of the creation of new values born from new ideas. In other words, for a corporation, environmental activities are in perfect agreement with economic rationality.

We recognize that to preserve the global environment and create a sustainable society, planning and appropriate implementation of long-term environmental measures are of the utmost importance. Naturally, achieving this requires that management has a precise view and understanding of society in the future. We will actively work to protect the environment and meet our other social responsibilities through “light innovations” and by contributing to the richness and bounty of society, industry and lifestyles. Achieving this aim will undoubtedly raise Ushio’s corporate value.

I ask for your continued understanding and support as we strive to reach these goals.

Our Environmental Management System

Ushio's Environmental Policy

Basic Philosophy

We at USHIO recognize symbiosis with the global environment to be one of today's most important challenges for enterprises. We pledge to contribute to the creation of a sustainable society by incorporating measures for environmental protection into every aspect of our business activities.

Action Guidelines

1. We will make every effort to achieve our own environmental protection goals, in compliance with the laws, regulations and environmental rules both in Japan and abroad.
2. We will endeavor to reduce waste and the use of hazardous substances, and to recycle and save resources and energy to reduce environmental impact in all fields of business.
3. We will continue to work on the development and supply of environmentally conscious "Lighting-edge Technologies and Products".
4. We will strive to prevent environmental risks, such as contamination of natural resources by chemicals or waste.
5. We will improve environmental management system continuously through the regular audit of environmental protection activities.
6. We will provide public information on our environmental protection activities and make every effort to enhance the quality of that information based on close communication and mutual understanding.
7. Every employee of USHIO will contribute to realize a recycling-based society through the awareness of each individual's role in protecting the environment.

March 1, 2005

Shiro Sugata

President and Chief Executive Officer

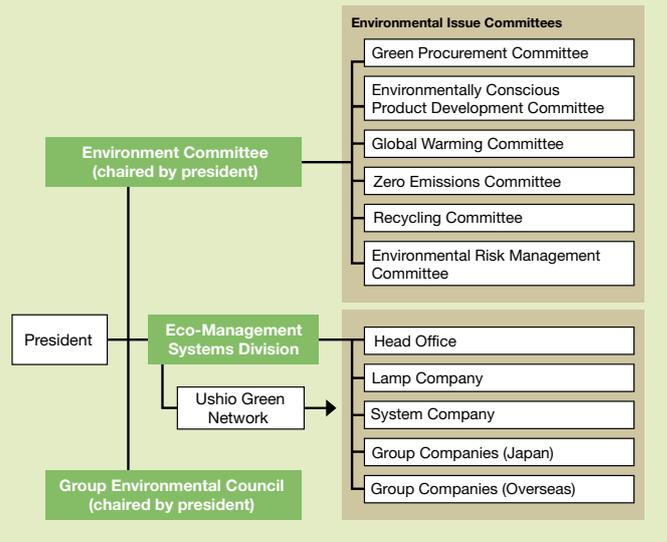


Implementing Structure

The Environment Committee and the Group Environmental Council, both chaired by the company president, are the highest decision-making bodies for Ushio's environmental policy and planning.

Immediately below the Environment Committee are six specialized groups. These give guidance and undertake specific action at all the sites of the Ushio Group. Activities are developed through the Eco-Management Systems Division and the Ushio Green Network to ensure that environment-related goals are met at every site.

The Ushio Group's consolidated environmental management is being implemented in accordance with this integrated structure under direct executive control.



USHIO's Environmental Vision

Objectives and Targets of Phase Two of the Environmental Action Plan (Fiscal 2007–2009)

Based on the fundamental principle of contributing towards the realization of a sustainable society through environmental production activities in various areas of business, the Ushio Group has continued to formulate specific activity objectives and plans since fiscal 2003 (Phase One of the Environmental Action Plan). In a proactive approach we have also implemented environmental management, addressing environmental considerations and reduction of the environmental load with respect to products, procurement and other areas.

With a vision that promotes innovation, we intend to continue meeting the challenge of implementing our philosophy without compromise.

2010 Environmental Vision Aimed at Realizing a Sustainable Society

From the viewpoint of supply chain management (SCM), the Ushio Group has set its sights on the development of activities focusing on the four major issues of energy saving, waste handling, the creation of greener products and the reduction of environmental risk, and their integration with business activities by fiscal 2010. To achieve these goals, we are identifying whether issues require an aggressive or protective approach, and moving ahead with the implementation of appropriate countermeasures.

1. Improvement of environmental productivity* through the integration of environmental activities and management (aggressive)
2. Expansion of performance improvement activities for environmentally conscious products (aggressive)
3. Enhancement of environmental risk management for products and production activities (protective)

* Environmental productivity

This refers to the creation of competitive products and services through processes in harmony with the environment, by strengthening the links between production activities (total productive maintenance) and material flow cost accounting and by improving productivity from an environmental perspective. In real terms this means the efficient use capital for investment in the production process, and management with a view to the generation of added economic value through waste reduction and recycling.

The Four Themes of Phase Two of Ushio's Environmental Action Plan

Four environmental themes were established with the aim of realizing our environmental vision.





Activity Principles and Objectives

Towards more specific environmental management system (EMS) activities with the establishment of internal and external targets

The entire group is making every effort to reach internal and external targets established during the development of environment management systems for the Ushio Group with the aim of becoming a corporation that customers will find attractive.

Internal targets

- Achieving the goals of Ushio’s environmental themes
- Overall enhancement of environmental load index and environmental accounting by the entire group
- Enhanced information sharing
- Strengthened group governance with regard to issues such as compliance

External targets

- Unified information disclosure and environmental message promotion throughout the group
- Global brand protection and strengthening
- Superior supplier certification
- Improved corporate rating

Overview of Activities and Case Examples

Establishment of environmental management systems

The Ushio Inc. Lamp Company (Harima Division), Ushio’s major plant, acquired ISO 14001 certification in October 1997, the year after it was first published. Later, in line with operational reforms started in fiscal 2002 to achieve total optimization, and the increasing demand from customers for green procurement, all companies in the group began working towards acquiring certification. With the acquisition of certification by the Ushio Inc. Head Office in December 2004, all of the Ushio Inc. sites had received certification.

Group companies in Japan and overseas have also proceeded to establish environmental management systems. In fiscal 2006, Gunma Ushio Electric, Inc. and Ushio Korea, Inc. acquired ISO 14001 certification. Based in decisions made at the Group Environmental Conference, each group company is taking steps to acquire certification, moving steadily toward implementing EMS structures.

From the establishment of environmental management systems to enhanced group environmental governance

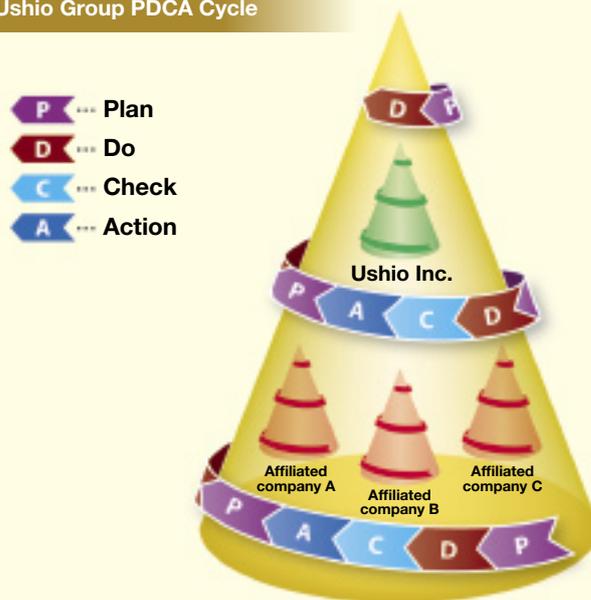
The environmental measures taken by the entire Ushio Group were brought together by the “Eight Items for Enhanced Group Environmental Governance” deliberated and established by domestic and overseas group company executives at the Environment Committee meeting held in February 2005. Group companies in Japan base their activities on the ISO 14001 standard, while those in other countries practice procedures compliant with ISO or equivalent EMS standards.

While each company maintains its own independent systems, the Ushio Green Network is establishing its PDCA system in group companies worldwide, aiming for the continuous improvement of its business practices.

Eight Items for Enhanced Group Environmental Governance

1. Environmental activities shall be conducted by all group companies
2. The Ushio Environmental Action Plan shall apply to all group companies
3. Activities in Japan shall be based on the ISO standard, activities overseas shall be based on the ISO standard or independent EMS standards
4. Manufacturing companies shall abide by the ISO standard
5. The implementation status of environmental activities shall be verified by internal audit
6. Environmental communication shall be coordinated and conducted through the Eco-Management Systems Division
7. Environmental performance figures, environmental accounting and other environmental data shall be disclosed
8. Group environmental production activities shall be supported

Ushio Group PDCA Cycle



Future Efforts

Introduction of the USHIO ECO-SYS (Environmental Performance Analyzing System) to further encourage group EMS activities

To reinforce integration of environmental activities and management, the USHIO ECO-SYS (Environmental Performance Analyzing System) [refer to page 15], is being implemented as planned throughout the group. This serves as a tool to revitalize EMS activities.

Based on the objectives and targets of Ushio’s Phase Two Environmental Action Plan, every effort will be made to fully unify environmental activities and management.

* A group of 48 employees from 20 domestic and overseas companies (as of fiscal 2007), including group companies, organized to deal with environmental issues and share related information.

Environmental Action Plan

Ushio Environmental Themes and Targets, and Achievements in Fiscal 2006

Environmental Themes		Division Responsible for Implementation	Fiscal 2006 Target
1. Contribute to the market through products	(1) Develop environmentally conscious products	Environmentally Conscious Product Development Committee	Ensure that all main products developed are environmentally conscious (Ushio Inc.)
	(2) Build a recycling system	Recycling Committee	Achieve 99% or higher reuse of materials in all UV lamps
2. Promote environmental production activities at places of business	(1) Promote energy-saving measures (prevent global warming)	Global Warming Committee	Reduce CO ₂ emissions per unit sales by 10% or more below fiscal 1990 levels (Ushio Inc.)
	(2) Promote zero emissions	Zero Emissions Committee	Achieve zero emissions (all group companies)
3. Promote green partnerships	(1) Promote green procurement of parts and materials	Green Procurement Committee	Achieve a green procurement level of 99% or more (all group companies)
4. Improve environmental management system	(1) Build an environmental management system (based on ISO 14001 certification)	Eco-Management Systems Division	Expand environmental management systems (all group companies)
	(2) Create an environmental accounting system	Eco-Management Systems Division	Implement material flow cost accounting
	(3) Strengthen the environmental risk management system	Environmental Risk Management Committee	Introduce environmental risk management guidelines (all group companies)
5. Promote contributions to the environment and society (strengthen environmental communication)	(1) Issue Environmental Report and Sustainability Report	Eco-Management Systems Division	Publish Sustainability Report 2006 in June, covering group's fiscal 2005 activities (all group companies). Establish an environmental information center (corporate governance).

Ushio's Phase Two Environmental Action Plan Objectives and Target (Fiscal 2007–2009)

Environmental Themes		Division Responsible for Implementation	Objectives and Targets
1. Environmental management	Strengthened environmental governance	Eco-Management Systems Division	• Establishment of Ushio Group environmental management system
	Enhanced efficiency of environmental production through strengthened links between the environment and production activities	Eco-Management Systems Division	• Visualization of environment-related information with direct bearing on management and enhancement of environmental productivity
	Strengthened environmental risk management	Environmental Risk Management Committee	• Reduction of environmental risks through stronger countermeasures
2. Activities to promote environmentally conscious product performance	Expanded lineup of environmentally conscious products	Environmentally Conscious Product Development Committee	• Introduction of environmentally conscious product standards overseas and creation of "super-green products"
	Expansion of product recycling system	Recycling Committee	• Establishment of product recycling systems
	Implementation of measures to deal with chemical substances	Green Procurement Committee	• Reduction, replacement, and eradication of certain hazardous substances in response to globalization of markets
3. Activities to promote environmentally conscious operations (including in offices)	Strengthened global warming countermeasures (energy-saving measures)	Global Warming Committee	• Reduction of energy use measured as CO ₂ emissions (crude oil equivalent) per unit sales by 13% or more over fiscal 1990 levels • Reduction in CO ₂ emissions by 10% or more over fiscal 2006 levels through improvements in distribution
	Reduction of waste	Zero Emissions Committee	• Curbing of generated waste and proactive efforts to reduce cost and environmental load
4. Activities that contribute to the environment and society (shared activities)	Enhanced communication with stakeholders	Eco-Management Systems Division	• Active communication of Ushio's environmental philosophy and environmental efforts to stakeholders
	Strengthening (expansion) of social contribution programs	Eco-Management Systems Division	• Environmental contributions at both the local and global levels



Evaluation	Major Activities, Achievements in Fiscal 2006
◎	Achieved 100% in Lamp Company and System Company. Standards set for environmentally conscious products in design review.
○	Application for industrial waste disposal wide area recognition (authorization acquired April 2007). Preparation for introduction of UV lamp recycling system completed.
△	Achieved annual targets at Yokohama Office, Head Office and business departments. Target not reached at Harima Division due to the influence of production fluctuations on CO ₂ per-unit-sales emissions. Overall CO ₂ emissions per sales unit were 196.3 kg/¥ million, above target of 146.3 kg/¥ million.
△	As a result of recycling plans promoted at all offices and locations, Ushio Inc. Yokohama Division, Osaka Branch and Nihon Denshi Gijutsu Co., Ltd. achieved zero emissions but target not met by all domestic group companies. Effective usage rate for Ushio Inc. in fourth quarter was 98.1%.
△	Consolidated version of Green Procurement Standards for all Ushio companies established. Introduction and application of Ushio Green Procurement Guidelines by group companies in the Asia region. Ushio Green Procurement Guidelines and chemical substance management system guidance provided for group companies in the North American region. System created to promote green procurement in cooperation with Ushio Inc.
○	ISO 14001 certification acquisition; completed or planned for all selected sites for group companies in Japan. One overseas sales company also acquired ISO 14001 certification, while non-certified sites are working on establishing EMS.
◎	Implementation of seminars and material flow cost accounting at the Harima Division.
△	Establishment of Environmental Risk Management Guidelines and implementation of environmental risk management workshops under the supervision of the Personnel Department. Creation of hazard maps and risk maps, and revision of environmental manuals by each site in line with the guidelines. Implementation slightly behind group development.
◎	Publication released on June 25 describing the activities of Ushio Inc. companies and major group companies in Japan and overseas, detailing site data and reporting some CSR activities. Digest in English to be published in September. Environmental information center established and expanded.

Evaluation: ◎ = target exceeded; ○ = target achieved; △ = in progress but not complete; × = less than 60% complete

Fiscal 2007	Fiscal 2008	Fiscal 2009
<ul style="list-style-type: none"> Implement group-wide environmental education Implement group-wide mutual inspections 	<ul style="list-style-type: none"> Introduce e-Learning Enhance Ushio's Environmental Action Guidelines (English version, etc.) 	<ul style="list-style-type: none"> Establish group EMS
<ul style="list-style-type: none"> Introduce material flow cost accounting (Harima, Gotemba) Introduce environmental performance and environmental accounting systems 	<ul style="list-style-type: none"> Introduce material flow cost accounting (Yokohama) 	<ul style="list-style-type: none"> Introduce material flow cost accounting (throughout the group)
<ul style="list-style-type: none"> Establish environmental risk management guidelines Determine the amount of specific chemical substances used and released at each site 	<ul style="list-style-type: none"> Conduct routine environmental risk inspections (overseas) Set up a database of regulations and other requirements Increase product environmental regulation education 	—
<ul style="list-style-type: none"> Introduce environmentally conscious product assessment standards overseas Improve the development roadmap Improve the level of LCA 	<ul style="list-style-type: none"> Create and announce "super green" products Achieve an LCA rate of 50% for major products 	<ul style="list-style-type: none"> Create and announce one "super green" product from each business unit Achieve a 100% LCA rate for major products
<ul style="list-style-type: none"> Expand product recycling systems 	<ul style="list-style-type: none"> Establish product recycling systems 	—
<ul style="list-style-type: none"> Determine and strengthen the management of specified hazardous chemical substances Enhance handling of VOC and others substances 	—	—
<ul style="list-style-type: none"> (Ushio Inc.) Reduce CO₂ emissions per unit sales by 11% or more below fiscal 1990 levels (All group companies) Reduce CO₂ emissions per unit sales by 1% or more below fiscal 2005 levels Reduce CO₂ emissions by 5% or more below fiscal 2006 levels by improving distribution 	<ul style="list-style-type: none"> (Ushio Inc.) Reduce CO₂ emissions per unit sales by 12% or more below fiscal 1990 levels (All group companies) Reduce CO₂ emissions per unit sales by 2% or more below fiscal 2005 levels Reduce CO₂ emissions by 8% or more below fiscal 2006 levels by improving distribution 	<ul style="list-style-type: none"> (Ushio Inc.) Reduce CO₂ emissions per unit sales by 13% or more below fiscal 1990 levels (All group companies) Reduce CO₂ emissions per unit sales by 3% or more below fiscal 2005 levels Reduce CO₂ emissions by 10% or more below fiscal 2006 levels by improving distribution
<ul style="list-style-type: none"> (Domestic Group) Maintain zero emissions (Ushio Inc.) Reduce waste processing cost by 5% compared to the previous year 	<ul style="list-style-type: none"> (Domestic Group) Reduce waste processing cost by 5% compared to the previous year 	<ul style="list-style-type: none"> (Domestic Group) Reduce waste processing cost by 5% compared to the previous year
<ul style="list-style-type: none"> Continue publishing the Group Sustainability Report including CSR Reports Publish English versions of the Group Sustainability Report including CSR Reports Expand the environmental information center (introduce e-Learning facilities) 	<ul style="list-style-type: none"> Continue publishing the Group Sustainability Report including CSR Reports Continue publishing an English version of the Group Sustainability Report including CSR Reports 	<ul style="list-style-type: none"> Continue publishing the Group Sustainability Report including CSR Reports Continue publishing an English version of the Group Sustainability Report including CSR Reports
<ul style="list-style-type: none"> Establish an Eco-Club (private activities, with registration online) Examine systems (volunteer leave, etc.), and hold environmental events 	<ul style="list-style-type: none"> Introduce systems Hold environmental events (continuation of previous events) 	<ul style="list-style-type: none"> Hold environmental events (continuation of previous events)



Activity Principles and Objectives

Preemptive establishment of a management system

To achieve compliance with the European Union's WEEE directive regarding waste and electrical and electronic equipment, and the RoHS directive and the China RoHS regarding the use of hazardous substances in electrical and electronic equipment, Ushio is strengthening both internal and external cooperation and establishing a management system in an all-out effort to reduce the risk of hazardous substances and pollution.

Measures for six RoHS-designated substances were completed by the end of fiscal 2005. With an aim to further reducing risk in fiscal 2006, internal and control was enhanced, and measures were taken to further boost cooperation with each of the group companies.

Overview of Activities and Case Examples

Coordination between suppliers and customers

In April 2005, Ushio joined the Japan Green Procurement Survey Standardization Initiative (JGPSSI). After determining the individual circumstances of the demands and requirements of both customers and suppliers, in compliance with the JGPSSI guidelines (JIG)*1, a new edition of Ushio's Green Procurement Standards*2 was drafted in December 2006, establishing a uniform set of guidelines for the entire group.

As a further step to reducing the risk posed by hazardous substances, in addition to sampling analysis previously conducted with X-ray fluorescent spectroscopy, in fiscal 2006 Ushio designated high risk materials based on the JGPSSI guidelines, and introduced a hazardous substance management system (supplier self-assessment system).



RoHS compliant stock

*1 Guidelines for hazardous substance disclosure related to electrical and electronic products.

*2 Details of Ushio's Green Procurement Standards are available at: <http://www.ushio.co.jp/jp/eco/plan/green.html>

Chemical hazardous substance management system establishment and regulation

To assure that products do not contain regulated hazardous substances, there must be close cooperation between different departments and divisions. At the Lamp Company, the roles of related sections have been clearly defined, and a management system has been established in line with a quality management system (ISO 9001).

With the cooperation of group companies manufacturing lamps, the Harima Division, as the mother plant, together with all the business units involved, has started operation with the same standards and systems as closely related overseas group companies.

Elsewhere, production plants taking measures to manage hazardous substances used during processing are implementing self-imposed management in line with even stricter standards for the degree to which these substances are controlled than those stipulated in the PRTR Law*3.

*3 Pollutant Release and Transfer Register Law (Law concerning reporting, etc. of releases to the environment of specific chemical substances and promoting improvements in their management).



Orientations at group companies

Future Efforts

Enhancement of the management system by the entire supply chain

While keeping a close watch on regulatory trends concerning hazardous substances, the Ushio Group is continuing to enhance its hazardous substance control system throughout the entire supply chain.



Activity Principles and Objectives

The development and provision of products with low environmental load

Viewing concern about the environment as a business opportunity, the Ushio Group is pursuing a strategy of aggressively developing and supplying products that place less strain on the environment.

Rather than simply complying with environmental regulations such as the RoHS directive, Ushio develops and designs products following environmentally conscious product assessment standards and guidelines. Careful consideration is also given to market and technological information and the opinions of customers as a positive step to meeting demands, making a fresh departure from existing products with the aim of promoting the development of “super green” products using revolutionary environment-friendly technology.

Overview of Activities and Case Examples

Towards environmentally conscious design for all major products

- As initially planned, by fiscal 2006, all major products were environmentally conscious. Environmentally conscious product assessment has also been implemented throughout domestic group companies.
- LCA precision for lamps has been further improved and is conducted at the lamp design and development stages. The application of LCA was also expanded to include analysis of power supplies and appliances.



Environmentally conscious product standards orientation

- A total of 59 products were certified as being environmentally conscious in fiscal 2006, and efforts are underway to assure that all products acquire certification in the future. “Super green” product standards have also been drawn up and their implementation has begun.

<Power supply of a high-intensity lamp for a liquid crystal projector>

The use of an external trigger system and smaller parts enables a lightweight design and a 50% increase in eco-efficiency.

<Ultra-high pressure UV lamp>

Electrodes using new technology extend product life by 1.7 times and improve brightness by 15% for the lamp’s weight. Eco-efficiency is improved by 91%.

<Excimer VUV/03 cleaning unit lineup>

By extending the unit life, improving the processing capacity by 3.5 times and using hexavalent chrome-free plating, the eco-efficiency of this unit, which is used during liquid crystal and semiconductor manufacturing processes, has been improved by 70%.

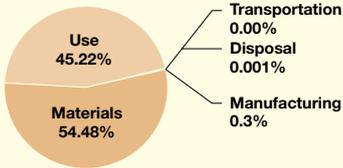
<Upgrading a spot UV curing equipment with an environmentally conscious design>

Upgrading a previous product like this with an environmentally conscious design effectively reduced environmental load and increased eco-efficiency by 40%.



* Eco-efficiency here is calculated as product value divided by environmental load. Numeric values are comparisons with previous Ushio products.

CO₂ emissions at each stage of the lifecycle of the power supply of a high-intensity lamp for a liquid crystal projector



Note: Since this power supply is manufactured overseas, the transportation stage is excluded. For the same reason, the CO₂ conversion unit value is that for manufacture in Japan.

Future Efforts

Environmentally conscious product design reflecting customer demands

For environmentally conscious products, differentiated product development is implemented with the goal of creating groundbreaking products that place minimal strain on the environment to meet customer needs while contributing to the reduced environmental load demanded by the market. We aim to actively address market and technological needs and customer demands, and improve the performance of environmentally conscious products through lifecycle assessment.



Activity Principles and Objectives

Reducing CO₂ emissions by 10% or more compared to fiscal 1990 levels

In its group-wide Environmental Action Plan, Ushio has established a target of reducing CO₂ emissions from its sites by 10% or more compared to 1990 levels (measured per unit sales) by fiscal 2006. To reach this target, Ushio developed the following key initiatives to reduce emissions.

- Expansion of visualization of electricity consumption, together with thorough production facility operation management, the introduction of energy-saving designs and other production technology related to energy-saving measures, and promotion of streamlining and overall energy efficiency.
- Promotion of energy-saving efforts and adoption of measures to eliminate energy waste or loss on a site-by-site basis, spearheaded by energy conservation groups at each site.
- Reduction of the amount of heavy fuel oil A used and review of new energy supply systems with the aim of replacing existing systems to reduce CO₂ emissions.

Overview of Activities and Case Examples

Expanded visualization of electricity use and higher efficiency

Promotion of energy-saving production facilities (Harima Division)

With the cooperation of the Production Technology Division, energy conservation measures were included at the production facility design stage. Energy meters and electric power monitors were also installed on existing equipment to enable visualization of electricity consumption levels with the aim of reducing power consumption.

Improvement measures based in energy-saving diagnosis (Harima Division)

In addition to steady efforts such as onsite inspections by the energy conservation subcommittee, improvements based on the results of energy-saving diagnosis by an electric power company were implemented in numerous problem areas.

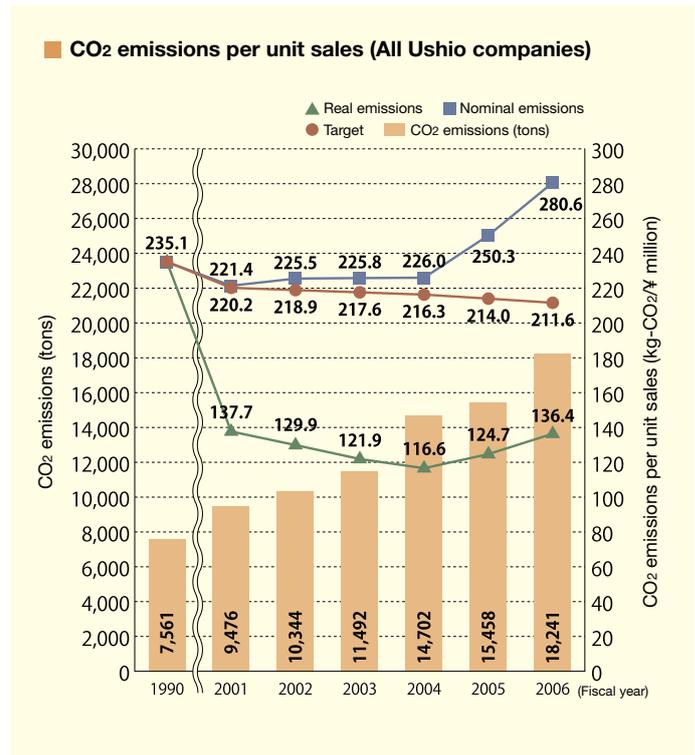
Elimination of a boiler using heavy fuel oil A (Gotemba Division)

A heavy fuel oil A boiler used for air conditioning was replaced with high-efficiency inverter type air conditioners with the aim of reducing CO₂ emissions.

Energy-saving measures are also continuing to be implemented and enhanced at other sites to decrease energy consumption.

However, at the Harima Division, which accounts for about 80% of the total energy consumed by all of the companies, with the startup of large-scale operation in the new buildings and increased energy consumption accompanying production line relocation, by the end of the fiscal year the target had not been reached.

(For Ushio, targets and results are calculated for nominal emissions per unit sales, but taking into consideration reduced retail prices and other factors, real emissions per unit sales were about 40% lower than in fiscal 1990. As a result, from fiscal 2007 revisions for targets and the basic unit are scheduled to comply with the standards of four electrical and electronics associations.)



* The conversion factor of 0.555kg-CO₂/kWh used for calculating the amount of CO₂ emitted from the amount of electrical power used is based on the Law Concerning the Promotion of the Measures to Cope with Global Warming

Future Efforts

Group-wide expansion of visualization of electricity use

- Continued examination of energy conservation at the design and purchasing stages, focusing on production facilities with the aim of switching over to more energy-efficient facilities.
- Examination and promotion of energy sources with low CO₂ emissions such as solar energy.
- Expansion of visualization of electricity use with measures such as the installation of electric power monitors to improve analytical capability and boost awareness of energy conservation while reducing energy consumption.



Activity Principles and Objectives

Zero emissions at production sites as a priority

Suppressing the generation of waste to reduce emissions and eliminate disposal in landfills—these are essential activities if a recycling society is to be realized. As the first step to achieving this goal, Ushio Inc. is working towards attaining zero emissions* at its production sites. Measures are also being implemented at the Head Office and other offices to assure even more effective usage, together with the promotion of aggressive steps to curb the amount of waste material generated and thereby reduce emissions, and efforts to reduce the environmental load.

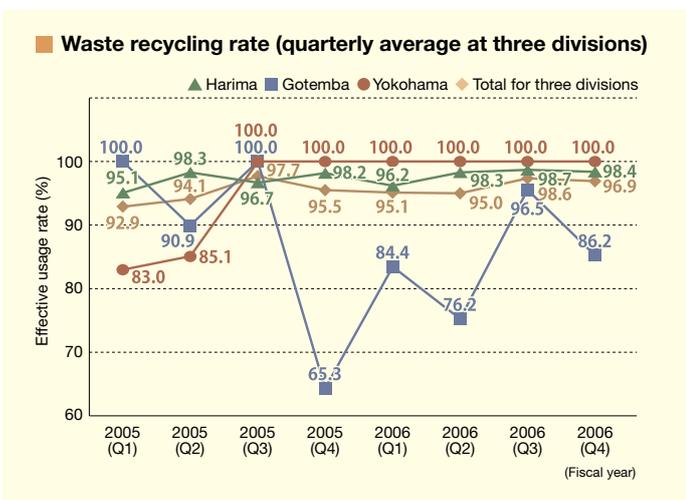
Through these and other measures underway throughout the Group, the aim is to lower the environmental load by reducing the amount of waste produced by the entire Ushio Group.

* Zero emission is defined as an effective usage rate of 99% or more.

Overview of Activities and Case Examples

Ushio Inc. is close to zero-emissions status—future measures for the group

The Yokohama Division and Osaka Branch achieved zero-emissions status in fiscal 2005. Activities to achieve the same status were also promoted at the Harima and Gotemba Divisions during fiscal 2006 but they did not meet this target. However, the Harima Division is expected to reach the target of zero emissions in the first quarter of fiscal 2007. At the Gotemba Division, with the decision to realize more effective usage by separating scrap glass, which accounts for the better part of landfill scrap, zero-emissions status is just a short step away.



At the Head Office and Tokyo Sales Headquarters it is difficult to independently appoint an agency to take care of recycling because the office space is rented. Nevertheless, with the aim of reducing emissions, in fiscal 2006 the use of reusable lunch boxes was firmly implemented and expanded and positive results are now being seen.

Efforts to share information among the domestic group companies have also led to the development of countermeasures such as this elsewhere.

Expanded UV lamp resource recycling (Harima Division)

Following on from resource recycling of large UV lamps started in 2005, full-scale implementation of the same processing for small lamps has begun. It is estimated that this will reduce the waste landfill rate to 1% or lower, and zero emissions are expected to be reached by the first quarter of fiscal 2007.

Review of disposal routes for resource recycling (Gotemba Division)

Entering into a contract with an agency that can recycle scrap quartz glass that was previously disposed of in landfill has taken the division a step closer to achieving zero emissions.

Information sharing with group companies

Efforts are moving ahead to establish a system enabling information sharing with group companies using the USHIO ECO-SYS [refer to page 15].

Future Efforts

Emissions reduction at all levels including group companies

- As well as efforts to achieve zero emissions at the Gotemba Division, company-wide measures have been enhanced to reduce waste emissions. Introduction of material flow cost accounting has been expanded with the aim of curbing waste where it is generated.
- Using the USHIO ECO-SYS after full-scale introduction in fiscal 2007, Ushio plans to reduce emissions at every level including group companies through the promotion of the sharing of information concerning waste emission status.



Activity Principles and Objectives

Establishment and application of Environmental Risk Management Guidelines for the entire group

Viewing them as important corporate risk factors, Ushio is taking steps to reduce and avoid environment-related risks. Environmental management systems established and in operation at each site will be reviewed and enhanced from the standpoint of group environmental management.

- ◆ Synchronize measures at each site.
 - ◆ Further enhance each employee's feeling and understanding of risk.
 - ◆ Promptly consolidate environmental risk information at the Head Office, share that information and rapidly respond when necessary.
- Ushio aims to implement these and other activities clarified in the Environmental Risk Management Guidelines.

Overview of Activities and Case Examples

Fostering a stronger awareness of environmental risk

Based on the inauguration of the Environmental Risk Management Committee and the establishment of the Unified Rules for Environmental Risk Information in fiscal 2005, Ushio Inc. implemented even more substantial measures in fiscal 2006.

- The Environmental Risk Management Guidelines, which include the abovementioned Unified Rules for Environmental Risk Information, were established in October 2006. To assure a better understanding among employees of the details of the guidelines, environmental risk workshops were held from January through February 2007 at all sites.
- In January 2007, each site drew up environmental hazard maps in line with the guidelines.

- In March 2007, to align environmental risk map levels, the Environmental Risk Assessment Method and Standards was published as an accompanying document with the guidelines. Based on this, environmental hazard at each site was assessed and environmental risk maps were created.
- The environmental manual was revised in line with the guidelines. For example, it was clarified that periodic examination of regulations should be conducted at least once every three months, and compliance assessment should be conducted once a month. Compliance assessment is reported to the head of the Eco-Management System Division at the Head Office as part of the internal control compliance system and risk management system.
- At sites where the major products include ultra high-pressure UV lamps, education and training is conducted for concerned parties focusing on mercury as a significant environmental aspect. In March 2007, to reduce environmental risk and enhance safety and health improvement activities, workshops focusing on how to handle mercury were held at the Harima Division for employees at the managerial and above level.

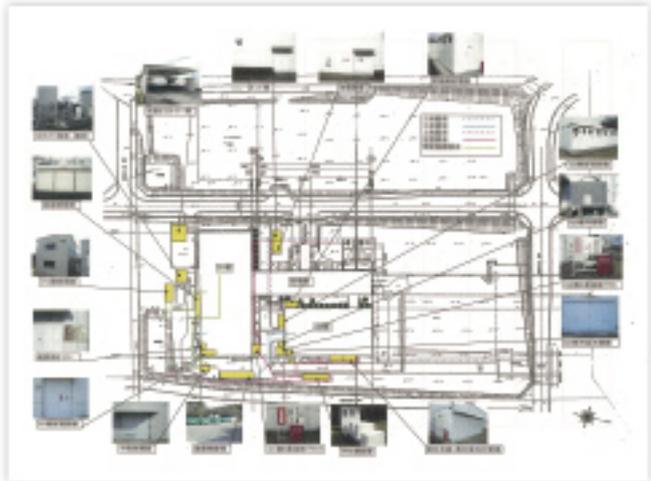


Workshops focusing on how to handle mercury

Future Efforts

Application of guidelines by domestic and overseas group companies

On March 7, 2007, the top executives of domestic and overseas group companies gathered for the group Environmental Council where the implementation of the Environmental Risk Management Guidelines throughout group companies was verified. The guidelines will first be applied at domestic group companies, with application at overseas group companies scheduled for the middle of 2007.



Example of a site environmental hazard map

Recycling in Japan

Activity Principles and Objectives

Reducing environmental load throughout a product's entire lifecycle

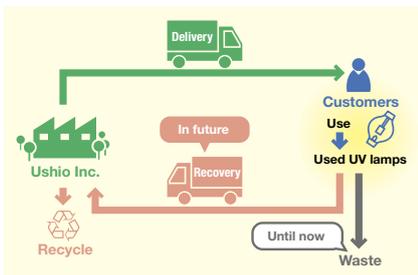
Lamps, Ushio's major products, are consumable goods. Customers use them and then after use they are disposed of as the customers' waste. As items that are difficult for customers to treat, particularly UV lamps which contain mercury, they must be disposed of using designated methods.

Viewing reduction of environmental load throughout the entire lifecycle as one way of contributing to the environment, Ushio Inc. aims to reduce environmental load not only at the stage where a product is used by a customer but also after it has been used and at the disposal stage. The goal of recycling used UV lamps is the efficient use of resources.

Overview of Activities and Case Examples

Establishing recycling techniques for used short-arc UV lamps

Ushio Inc. has established recycling techniques for used short-arc UV lamps in Japan. Following on from the development of resource recycling techniques for large short-arc UV lamps in fiscal 2005, techniques were developed for small short-arc lamps in 2006 and a resource recycling route was established to achieve an effective usage rate of 99% or more (virtually 100%).



Based on these results, with the aim of recycling customers' used semiconductor exposure short-arc UV lamps as the next step, plans have been examined with the cooperation of related departments and companies to reach this goal.

Towards the establishment of a recycling system, an application was made for waste disposal wide area recognition, and in April 2007 authorization was acquired from the Ministry of the Environment (Authorization number: 105).

Future Efforts

Business development and recycling system improvement

For our domestic customers, with their understanding, agreement and cooperation, we are developing contract-based semiconductor exposure short-arc UV lamp recovery and recycling operations.

Through these operations we are making every effort to improve the recycling system. The establishment of recycling systems for other UV lamps will also be examined.

An environmental conscious products PR example

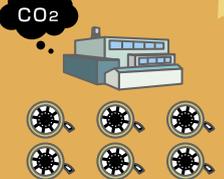
Ushio Inc. always promotes environmental conscious product development of products by office commendation and an exhibition positively.

In addition, in the group company, an important point is put for the spread of products promotion leading to environmental protection.

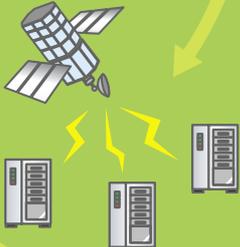
We introduce spread of digital cinema projectors promotion leading to epoch-making environmental protection below (a poster).

It is an action of CHRISTIE DIGITAL SYSTEMS CANADA, INC. becoming the production of digital cinema projectors factory.

Film system Conventional

- 1 Shooting process**
 They use the films to shoot movies. They need many films.
 
- 2 Development / Edit process**
 They have to edit and splice a lot of film. Unused film generates garbage!
 
- 3 Duplicate process**
 Thousands of the same films will be copied. Many films will be sent to anywhere in the world.
 
- 4 Transportation process**
 Those films are shipped by various transportation ways to the whole world. However, CO₂ will be generated anyway!
 
- 5 Screen process**
 Most of the traditional movies are shown in this way.
 

Digital system NEW

- 1 Shooting process**
 All of the photos of the cinema are taken with a digital camera. The situation of any event is also recordable with digital one.
 
- 2 Edit process**
 Edit by computer is possible for all process. Even CG has no problem.
 
- 3 Distribution process**
 We can send these data to distant country and neighboring town at once. We can show the same cinema in all theaters in the world at same time.
 
- 4 Screen process**
 It is environmentally cleaner and picture is clearer. Digital System is standard for new movies.
 

Achieving an Ecological Balance



Activity Principles and Objectives

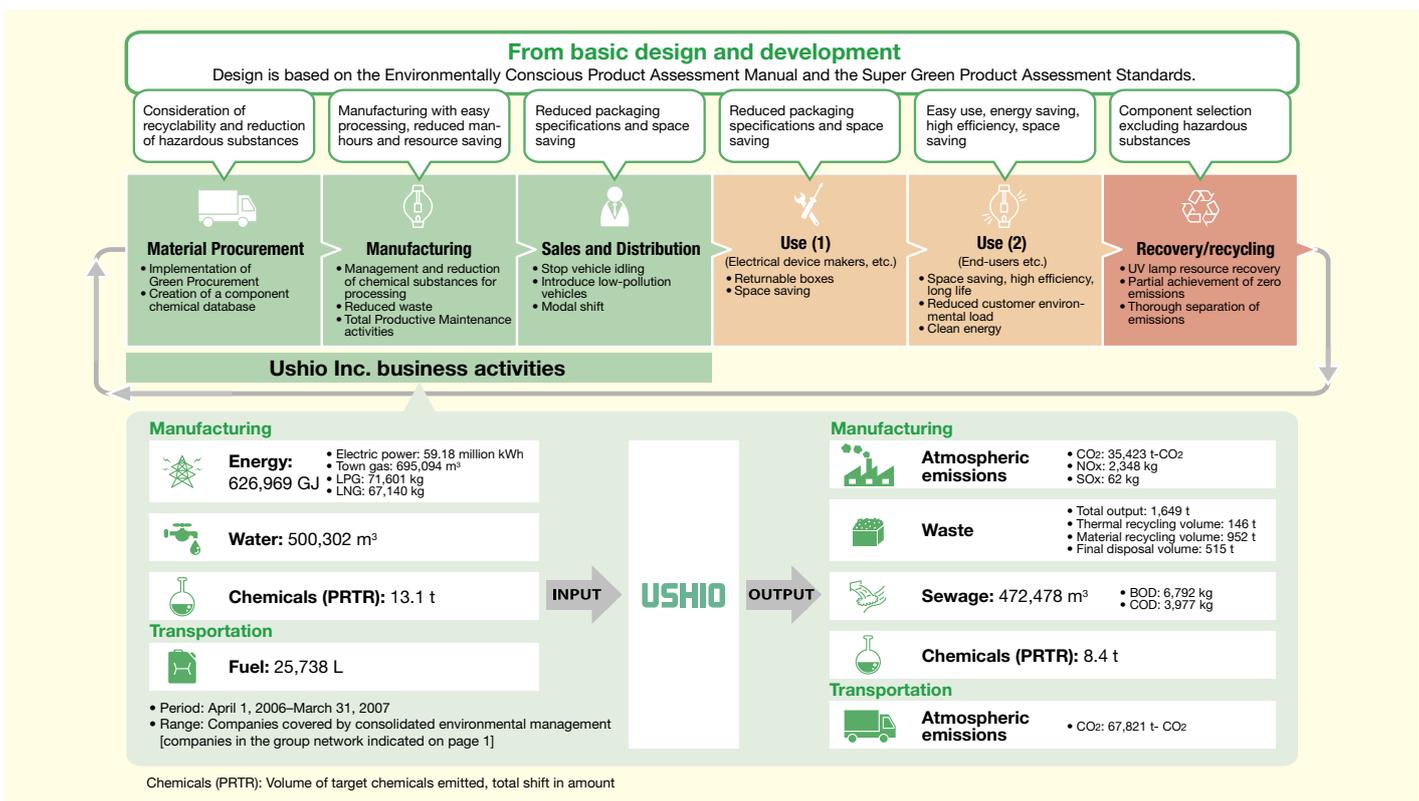
Promotion of environment-related information acquisition and creation of a database

To perform environmental production activities efficiently they must be conducted from the viewpoint of environmental management. It is also necessary to gain a clear understanding of environmental load if environmental management is to be promoted throughout the Ushio Group. We are currently assessing environmental load for the entire group, and have expanded the range of investigation to include transportation in an effort to further improve assessment accuracy.

Overview of Activities and Case Examples

Ushio Group's Ecological Balance

Products are assessed at each stage of their lifecycles to determine the influence of Ushio Group business activities on the environment.



Future Efforts

Comprehend information for more effective investment

By gaining a broader, more detailed picture of the environmental load of Ushio Group business activities and the lifecycle of Ushio products, and by making more effective investment in environmental conservation activities, the Ushio Group is further strengthening its environmental management. To more effectively calculate overall environmental load in the future, the USHIO ECO-SYS [refer to page 15] is being introduced and data acquired through the system is being compiled into a database.

The introduction of material flow cost accounting is another measure being implemented to meet the challenge of reduced waste, particularly with respect to manufacturing lines.



Activity Principles and Objectives

Practicing environmental management throughout the group

To assure effective environmental investment, environmental accounting is being introduced throughout the Ushio Group. Based on the strategy of group-wide environmental management, this will enable a clearer understanding of the entire group's environmental investment and its effectiveness, and provide useful information for improved environmental investment the following fiscal year.

Overview of Activities and Case Examples

Fiscal 2006 costs and effective amount

In fiscal 2006, costs for domestic and overseas group companies (companies implementing consolidated environmental management) were compiled based on unified standards. By gaining a more detailed understanding of the environmental load of Ushio Group business activities and the lifecycle of Ushio products, the group is working towards more efficient environmental management. With the establishment of new group companies and other factors, the scope of accounting is continuing to expand but efforts are underway to improve analytical capabilities to assure more precise accounting and effective investment.

Total costs in fiscal 2006 amounted to 705 million yen, of which a

total of about 144 million yen was effective investment (actual benefits and estimated benefits). Compared to fiscal 2005, there was a dramatic increase in management activity costs and research and development costs but this was due to vigorous EMS activities domestically and in particular overseas, promotion of the surveillance and reduction of hazardous substances and other activities.

The effect of reducing energy during use of typical energy-saving products of Ushio Inc. and group companies was calculated.

Future Efforts

More detailed benefit calculation and analysis for more efficient environmental management

While moving ahead with environmental conservation activities on a group-wide basis, it is possible that costs will increase in the future. However, Ushio is continuing to enhance management and implement other measures to prevent pollution to avoid any possible risk. Following on from the introduction of the USHIO ECO-SYS at Ushio Inc. sites in March 2006, the system will be adopted by domestic and overseas group companies in fiscal 2007. As well as enabling a clear understanding of the cost of environmental activities of all group companies, calculation and analysis of the effects of these activities will help to achieve more efficient environmental management.

Environmental accounting

Unit: ¥ million

Category	Major activities	Cost	Investment in environmental equipment	Benefits		
				Actual	Estimated	
Pollution prevention	Prevention of pollution through maintenance of neutralization chambers and the use of new and expanded hydrofluoric acid treatment facilities; risk reduction with effluent concentration monitoring systems, etc.	35.1	29.1 Effluent concentration monitoring systems, electric power monitoring systems, new air conditioning systems, hydrofluoric acid treatment facilities	0.2	47.7	
Global environmental conservation	Energy savings through the introduction of high-efficiency air conditioning systems and renewal of lighting equipment, the installation of electric power monitoring systems enabling visualization of power consumption, etc.	67.1		25.5	2.3	
Reuse of resources	Improvements in waste disposal costs, increased profits from the sale of recycled waste, waste measurement systems, etc.	52.0		27.6	0.0	
Upstream/downstream activities	Green procurement compliance, reduced packaging material cost through the use of reusable boxes, etc.	20.4		0.0	0.1	
Maintenance activities	Maintenance of environmental management systems, reduction of risk through the use of monitoring of wells, effluent analysis, etc.	223.4		0.0	23.0	
R&D	Design changes to reduce hazardous substances; lamp LCA, improved product life characteristics, etc.	289.3		0.0	17.5	
Social contributions	Donations, landscaping, tree planting activities, etc.	17.4		0.0	0.2	
Response to environmental deterioration	—	0.0		0.0	0.0	
Total		704.8			53.4	90.9

Overall reduction in CO ₂ emissions	190,505 t-CO₂	* Reduction in CO ₂ emissions = (reduction in electricity use) x (number of units shipped in fiscal 200) x (CO ₂ conversion factor).
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Major investments in environmental facilities

Facilities	Equipment overview
Effluent monitoring system	Enables automatic measurement of hydrogen ion concentration in waste water, and monitoring with a PC.
Electric power monitoring system	System expansion proceeding to enable visualization of power consumption. Provides a detailed understanding of the power used by each production line.
New air conditioning system	Water-cooled air conditioners replaced by air-cooled inverter air conditioners, eliminating the need for a boiler.
Fluorine treatment facilities	Effluent water containing fluorine was previously treated as waste but fluorine treatment facilities enable the reuse of water.

- Period: April 1, 2006–March 31, 2007
- Range: Companies covered by consolidated environmental management [companies in the group network indicated on page 1]
- Environmental conservation costs baseline:
 - (1) Costs include personnel costs and depreciation of investments.
 - (2) A five-year straight-line depreciation method is used to calculate depreciation of investments.
 - (3) When environmental conservation costs are incurred along with other costs, only the amount directly related to environmental conservation was used in the calculations.
- Benefits: Actual benefits are calculated as they accrue, while estimated benefits are calculated according to estimations of possibility.
- * Reduction in CO₂ emissions = (reduction in electricity use) x (number of units shipped in fiscal 200) x (CO₂ conversion factor).



Activity Principles and Objectives

Wider communication for further social contribution

Lasting growth and development of the global environment depends on the thoughts and actions of people worldwide. We are to broaden corporate responsibility, environmental activities and social contribution through communication.

Achievements in Fiscal 2006 and Case Examples

Information sharing and enlightenment activities

In addition to reporting on environmental management issues in our Sustainability Report, we have focused on these issues in annual reports and investors' guides, raising public awareness of Ushio's environmental initiatives.

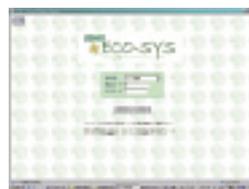
Once a month we also publish timely information received from different sites and countries regarding environmental laws and the status of our environmental activities in the "UGN (Ushio Green Network) News". And there's a regular section on environmental issues in the internal newsletter "Green Times" to boost environmental awareness among employees and their families.



USHIO ECO-SYS (Environmental Performance Analyzing System)



This system compiles and analyzes environmental performance and environmental accounting data that is then applied to environmental activities (on-site EMS activities). It will be introduced at all group sites covered by environmental management. Rather than being simply a system for information acquisition, it enables the utilization of eco-efficiency and segment indices for the planning of current and future corporate environmental conservation activities.



USHIO ECO-SYS login display

Through the integration of environmental and economic activities, Ushio aims to incorporate the economic and social benefits gained from environmental activities in its management strategy to create a sustainable society.



Material flow cost accounting

USHIO INC. Harima and Gotemba Divisions

Ushio Inc. adopted material flow cost accounting as part of its production improvement activities (TPM, etc. loss reduction activities).

It is currently being applied to model lines to enable visualization of production improvements. The goal is to improve productivity from an environmental standpoint to create competitive products and services through environment-friendly processing, and to simultaneously reduce environmental load while cutting costs.



Implementation of material flow cost accounting

* Material flow cost accounting (MFCA): A method that analyzes both the flow of resources invested at the worksite (materials, energy, labor costs, etc.), through to the finished product at each manufacturing process, and the waste generated at each manufacturing process. By providing an understanding of materials flow with respect to quantity and cost, this enable us to determine how efficiently resources are being used.

* TMP: Total Productive Maintenance

Fund-raising activities

USHIO INC. Gotemba Division

In recognition of continuous fund-raising efforts since 1998, the division was awarded the "Shizuoka Prefecture Community Chest Association Prize" at the "2006 Shizuoka Prefecture Health and Welfare Convention" by the Shizuoka Council of Social Welfare.

USHIO AMERICA, INC. Oregon Division

Using refunds received through a national empty can deposit system for cans brought in from outside the plant by employees, together with funds collected through other in-house charity activities, the division made a donation to the American Cancer Center. This is a classic example of recycling activities linked to social contribution.

Participation in an "Electronic Waste Recycling Meet"

CHRISTIE DIGITAL SYSTEMS USA, INC. [CDSU] & USHIO AMERICA, INC. [UAI]

The two companies participated together in an electronic waste recycling meet held by the Department of Toxic Substances of the California Environmental Protection Agency. At the event, the companies contributed about three truck loads of used electronic equipment (PCs, etc.) that was repaired and patched-up by dealers for sale as moderately-priced secondhand PCs.

Events like this provide an opportunity to boost awareness among both employees and the general public.



Electric Waste Recycling Meet

Site Data

The entire Ushio Group is continuing to strengthen its environmental conservation activities with the introduction of the USHIO ECO-SYS [refer to page 15], the application of various guidelines, EMS certification and other measures. In fiscal 2005, a general investigation of asbestos (including examination of the past use status of asbestos in products) was conducted by Ushio and group companies to simultaneously verify there were no problems, and the findings were disclosed. Independent measures are also being implemented at each site to further contribute to the realization of a sustainable society.

In fiscal 2006, there were no reports of violations of environment-related laws, lawsuits, fines, penalties or accidents at any of the sites.

Production Sites

• Domestic

USHIO INC. Harima Division (Lamp Company)



1194, Sazuchi Bessho-cho, Himeji, Hyogo 671-0224, Japan

Primary Products:
Super-high-pressure UV lamps, NSH lamps, halogen lamps, inert gas lamps, excimer lamps

EMS Certification Status:
ISO 14001/Oct. 1997 (expanded certification at other sites including Gotemba Division, Tokyo Sales Headquarters and Osaka Branch in Oct. 2004)
ISO 9001/May 1993 (expanded certification at other sites including Gotemba Division in Oct. 1995)

Major Environmental Activities:
(1) Assurance of green procurement and enhanced cooperation by monitoring suppliers.
(2) Over 70 in-house environmental auditors registered as a result of in-house education system (as of May 15, 2007).

(3) Installed a hydrogen generator for stable hydrogen supply and reduced energy costs. Trailer shipments reduced, contributing to reduced environmental load.
(4) Employees, their families and nearby residents participated in the "Ushio Festival" featuring environmental video presentations and environmental activity exhibits.

PCB Status:
Inventory includes 74 electrical devices using PCBs (early registration completed for PCB waste disposal application)

USHIO INC. Yokohama Division (System Company)

Zero emissions site



6409 Moto-Ishikawa-cho, Aoba-ku, Yokohama, Kanagawa 225-0004, Japan

Primary Products:
All types of exposure devices, spot UV irradiation devices, light measuring devices

EMS Certification Status:
ISO 14001/Feb. 2004, ISO 9001/Jul. 1997

Major Environmental Activities:
(1) Held the Eco-Action 21 orientation and expanded suppliers environmental activities
(2) Continued determination and verification of environmental factors prior to and after in-plant construction.
(3) As a part of risk management, enhanced the prior verification system when conducting tests that may adversely influence the environment.

PCB Status:
Inventory includes 3 electrical devices using PCBs (early registration completed for PCB waste disposal application)

* Includes Yokohama Sales Division

USHIO INC. Gotemba Division (Lamp Company, System Company)



1-90, Komakado, Gotemba, Shizuoka 412-0038, Japan

Primary Products:
Super-high-pressure UV lamps, liquid crystal panel devices, exposure systems

EMS Certification Status:
ISO 14001/Oct. 2004 (during expansion of Lamp Company certification), Feb. 2004 (System Company)
ISO 9001/Oct. 1995 (during expansion of Lamp Company certification), Jul. 1997 (System Company)

Major Environmental Activities:
(1) Soil analysis conducted at the time of construction of new facilities to verify there were no problems.
(2) Heavy fuel oil A boiler for air conditioning (1) removed to reduce CO₂ emissions.
(3) Recycling of quartz glass scrap as base course material.

PCB Status:
No products in the inventory use PCBs.

USHIO LIGHTING, INC.



860-22, Saiji, Fukusaki-cho, Kanzaki-gun, Hyogo 679-2215, Japan

Primary Products:
Halogen lamps for lighting, metal halide lamps, special heaters, optical fiber source devices

EMS Certification Status:
ISO 14001/Jan. 2003 (expanded certification at 5 other branches in Mar. 2006)
ISO 9001/Dec. 2001, OHSAS 18001/Sep. 2004

Major Environmental Activities:
(1) Switched to energy-saving devices with inverters to contribute to energy saving, particularly air compressors.
(2) Combined OHSAS 18001 and ISO 14001 for more efficient management.
(3) Promotion of landscaping and tree planting activities in nearby communities and industrial complexes.

PCB Status:
No products in the inventory use PCBs.

GUNMA USHIO ELECTRIC, INC.



262, Kondo-cho, Tatebayashi, Gunma 374-8521, Japan

Primary Products:
Office equipment, medical equipment, light source equipment, power supplies for discharge lamps

EMS Certification Status:
ISO 14001/May 2006, ISO 9001/Jan. 2002

Major Environmental Activities:
(1) Simplified packaging of purchased components to reduce environmental load and costs.
(2) Implemented 5S activities to clean and maintain areas near the plant.
(3) Created new environment-friendly products based on the technological standards of environmentally conscious product development (RoHS compliant product design and manufacturing).

PCB Status:
Inventory includes 1 electrical device using PCBs.

TSUKUBA USHIO ELECTRIC, INC.



5-2-1, Tokodai, Tsukuba, Ibaraki 300-2635, Japan

Primary Products:
Metal halide lamps, pulsed xenon lamps

EMS Certification Status:
ISO 14001/Apr. 2005, ISO 9001/Mar. 2004

Major Environmental Activities:
(1) Reduced transportation of resources to 4,670 kg compared to the target of 4,714 kg.
(2) Implemented efforts to reduce specified industrial waste (lamps containing mercury, waste oil and sludge)
(3) Number of mercury-containing lamps returned from the market reduced compared to previous year.

PCB Status:
Inventory includes 12 electrical devices using PCBs.

HYOGO USHIO LIGHTING, INC.



159-1, Igidani, Yamasaki-cho, Shiso, Hyogo 671-2517, Japan

Primary Products:
Halogen lamps for store lighting, halogen lamps for stage lighting, coil mounts for stage lighting

EMS Certification Status:
EMS establishment in progress

Major Environmental Activities:
(1) Implementation of management using graphs to visualize energy use with the aim of reducing gas and electricity consumption.
(2) 4S activities implemented weekly by all employees as part of plant environmental maintenance activities.
(3) Switching to materials recycling of general waste.

PCB Status:
No products in the inventory use PCBs.

NIHON DENSHI GIJUTSU CO., LTD.

Zero emissions site



2-2-27, Takane, Sagami-hara, Kanagawa 229-0021, Japan

Primary Products:
Projector signal switches, PHOBOS substrate (for projectors), substrate for cameras used in TAB inspection devices

EMS Certification Status:
ISO 14001/Aug. 2004, ISO 9001/May 1999

Major Environmental Activities:
(1) Achieved zero emissions in 2006.
(2) Through the promotion of newly designed lead-free substrate, 82% more boards are lead-free, 40% above the 2003 target.
(3) Waste reduced by 80%, a 20% bigger reduction than the 2003 target.
(4) Introduced environment-friendly vehicles covered by the green tax system.

PCB Status:
No products in the inventory use PCBs.

• Overseas

USHIO AMERICA, INC. <UAI>



5440 Cerritos Avenue, Cypress, CA 90630, U.S.A.

* Figures and activities include those of Ushio Canada, Inc. (UCI)

Primary Products:
Super-high-pressure UV lamps, metal halide lamps for office equipment, halogen lamps
EMS Certification Status:
EMS establishment in progress, ISO 9001/Oct. 2005 (UAI Oregon Plant)
Major Environmental Activities:
(1) Continuing to switch over to decomposable plastic packaging and cushioning material (potato or corn starch).
(2) Three employees became qualified ISO 14001 auditors (BVQI). Ten employees (about 10% of the workforce) of Cypress Irvine and 11 employees (about 15% of the workforce) of the Oregon Plant are defined as in-house ISO 14001 auditors.
(3) Among the programs organized by the Chamber of Commerce, "Environmental Management" in the "Newburg Leadership Program" has been introduced as the theme at environmental activity meetings at the Oregon Plant.

CHRISTIE DIGITAL SYSTEMS GROUP



10550 Camden Drive, Cypress, CA 90630, U.S.A.

* Figures and activities include those of CHRISTIE DIGITAL SYSTEMS USA, INC. (CDSU), CHRISTIE DIGITAL SYSTEMS CANADA, INC. (CDSC), and EVENT AUDIO VISUAL GROUP (EAVG)

Primary Products:
Theater projection systems, light source equipment, digital imaging devices and all types of projectors
EMS Certification Status:
ISO 14001/Jun. 2007 (CDSC), ISO 9001/Jun. 1987 (CDSC)
Major Environmental Activities:
(1) Improved business performance to reduce contaminated materials (CDSU).
(2) Enhanced recycling plans, increased the rate of recycling and reduced the number of man-hours required for waste disposal.
(3) Recycling and reuse of batteries, cans, bottles, paper goods and toner cartridges (EAVG).

BLV LICHT- UND VAKUUMTECHNIK GmbH <BLV>



Muehner Starbe 10, 85643 Steinhoring, Germany

* Figures and activities include those of Dipl.-Ing.Reinhold Eggers GmbH (EGG) and Natrium S.A. (NSA)

Primary Products:
Metal halide lamps, halogen lamps for lighting, halogen lamps for heaters, high-pressure UV lamps
EMS Certification Status:
EMS establishment in progress, ISO 9001/Dec. 1991
Major Environmental Activities:
(1) Co-founded a used lamp recovery and recycling company (WEEE compliant).
(2) Substances specified in the RoHS Directive not used (RoHS compliant).
(3) The reuse of natural gas as heating fuel (for reduced environmental load).
(4) Energy saving through the installation of heat exchange equipment.

USHIO (SUZHOU) CO., LTD. <USZ>



6, Yuyang Street, Suzhou New District, Suzhou, P.R.C.

Primary Products:
Halogen lamps for office equipment, inert gas fluorescent lamps, projector light sources
EMS Certification Status:
ISO 14001/Mar. 2005, ISO 9001/Mar. 2005, OHSAS 18001/May 2006
Major Environmental Activities:
(1) Among efforts to promote green procurement, highly praised for green plant inspection conducted by customers.
(2) As part of employee enlightenment activities, display of environmental posters in the cafeteria, at the manufacturing site and other locations.
(3) As part of an environmental beautification campaign, the placement of environment-protecting potted plants in offices, manufacturing sites and other locations.

USHIO PHILIPPINES, INC. <UPI>



First Cavite Industrial Estate, Barangay Langkaan, Dasmariñas, Cavite, Philippines

Primary Products:
Halogen lamps for lighting and office equipment
EMS Certification Status:
ISO 14001/Jun. 2004
ISO 9002/Dec. 2000
Major Environmental Activities:
(1) Activities to reduce man-hours, energy and waste with thorough 5S efforts.
(2) Review of manufacturing processes to reduce loss and costs and improve productivity.

TAIWAN USHIO LIGHTING, INC. <TULI>



#82, Taiho Road, Taiho-Li, Chupei, Hsinchu Hsein, Taiwan, R.O.C.

Primary Products:
Halogen lamps for stage lighting, halogen lamps for general lighting, metal halide lamps
EMS Certification Status:
ISO 14001/Apr. 2004, ISO 9001/Mar. 2003 (following ISO 9002 certification in Jul. 1997 as USHIO TAIWAN, INC., standards changed after becoming a spinoff company)
Major Environmental Activities:
(1) Promotion of the use of the reverse side of used paper, reduction of the use of toilet paper, and the development of other "reuse and reduce" activities.
(2) Adoption of a theme every month, and patrols at each department by selected employees in charge of 5S activities.
(3) All-round cleaning for 20 minutes before the end of the working day every Friday. Cleaning and removal of weeds outside manufacturing facilities every other week.

Nonproduction Sites

• Domestic

USHIO INC. Head Office



6-1, Otemachi 2-chome, Chiyoda-ku, Tokyo 100-8150, Japan

Primary Tasks:
Coordination of operations for Ushio Inc. and the Ushio Group
EMS Certification Status:
ISO 14001/Dec. 2004
Major Environmental Activities:
(1) Awarded the "EMS Head Office Prize" at the "Environmental Management Awards" held by Nippon System Planning Co., Ltd.
(2) Head Office electricity consumption reduced 20% compared to 2003.
(3) As a result of an in-house education system, internal environmental auditors account for over 13% of Head Office staff (as of May 15, 2007).
(4) Achieved effective use of resources and reduced waste with the installation of automatic vending machines that dispense drinks into employee's own individual cups.

USHIO INC. Tokyo Sales Headquarters



6-1, Otemachi 2-chome, Chiyoda-ku, Tokyo 100-8150, Japan

Primary Tasks:
Sale of light sources and light source units and devices
EMS Certification Status:
ISO 14001/Oct. 2004 (during expansion of Lamp Company certification)
Major Environmental Activities:
(1) Promotion of activities to increase the ratio of sales of environmentally conscious products and achieve other targets.
(2) Achieved effective use of resources and reduced waste with the installation of automatic vending machines that dispense drinks into employee's own individual cups.
(3) The use of delivered box lunches (reusable containers) to reduce waste.

USHIO INC. Osaka Branch

Zero emissions site



5-13-9, Nishi-Nakajima, Yodogawa-ku, Osaka 532-0011, Japan

Primary Tasks:
Sale of light sources and light source units and devices
EMS Certification Status:
ISO 14001/Oct. 2004 (during expansion of Lamp Company certification)
Major Environmental Activities:
(1) Promotion of the use of A5 size paper to reduce paper consumption (1.4% reduction compared to previous period).
(2) Promotion of the reuse of parcel delivery paper bags and cardboard boxes to reduce waste and emissions.
(3) Reduced electricity consumption (4.4% reduction compared to previous period) by promoting the switching off of lights.

XEBEX, INC.



Nishino Kinryo Bldg., 4-9-4, Hatchobori, Chuo-ku, Tokyo 104-0032, Japan

Primary Task:
Sale of projection equipment for cinemas, xenon lamps for projection equipment and cinema audio equipment
EMS Certification Status:
EMS establishment in progress
Major Environmental Activities:
(1) Determination of a certification body and development of other specific activities towards ISO 14001 certification.
(2) Implementation of EMS activities as much as possible, even if limited, at business sites.
(3) Introduction of non-film digital cinema to reduce the use of film and transportation costs to achieve reduced environmental load.

• Overseas

USHIO EUROPE B.V. <UEBV>



Sky Park, Breguetlaan 16-18,
1438BC Oude Meer,
the Netherlands

* Figures and activities include those of Ushio France S.A.R.L. (UFS), Ushio Deutschland GmbH (UD), and USHIO U.K., Ltd. (UUK)

Primary Tasks:

Sale of super-high-pressure UV lamps, xenon short-arc lamps, halogen lamps and light system products

EMS Certification Status:

EMS establishment in progress

Major Environmental Activities:

- (1) Provision of long-life lamps and other environmentally conscious products.
- (2) Collection of environmental information in Europe to enable implementation of appropriate environmental measures by Group companies.

USHIO HONG KONG LTD. <UHK>



Tower 6, 31/F, Suites 3113-14,
The Gateway, 9 Canton Road,
Tsim Sha Tsui, Kowloon, Hong Kong

* Figures and activities include those of Ushio Lighting (Hong Kong) Co., Ltd. (ULHK)

Primary Tasks:

Sale of halogen lamps for office equipment, inert gas fluorescent lamps and units, and projector light sources

EMS Certification Status:

EMS establishment in progress

ISO 9001/Jun. 2003

OHSAS 18001/Dec. 2003

Major Environmental Activities:

- (1) Diligent turning off of lights to reduce electricity consumption.
- (2) Recycling through the separation of waste.

USHIO TAIWAN, INC. <UTI>



#31, 10/F, Sec.1 Chung-Shiaw
E..Road, Taipei, Taiwan, R.O.C.

Primary Tasks:

Sale of super-high-pressure UV lamps, halogen lamps, all types of exposure devices and optical devices

EMS Certification Status:

ISO 14001/Feb. 2006

Major Environmental Activities:

- (1) Thorough separation to reduce waste and conscious refuse activities.
- (2) Emergency response drills for harmful gas leaks and other situations.

USHIO KOREA, INC. <UKI>



Dukheung Bldg., 14/F, 1328-10,
Seocho-dong, Seocho-ku, Seoul,
Korea

Primary Tasks:

Sale of super-high-pressure UV lamps, xenon short-arc lamps, all types of exposure devices and optical devices

EMS Certification Status:

ISO 14001/Dec. 2006

Major Environmental Activities:

- (1) Thorough routine implementation of measures to reduce waste and enforce the switching off of lights when not required.
- (2) Effective use of resources by abandoning the use of throwaway cups and using the reverse side of used paper.
- (3) Separation of waste before disposal on a daily basis.

USHIO SINGAPORE PTE LTD. <USPL>



#1, Jalan Kilang #05-01, Dynasty
Industrial Bldg., Singapore 159402

Primary Tasks:

Sale of super-high-pressure UV lamps, xenon short-arc lamps, halogen lamps and light system products

EMS Certification Status:

EMS establishment in progress

Major Environmental Activities:

- (1) Development of specific activities towards ISO 14001 certification.
- (2) Digitization of business trip reports and other documents, and reduced use of copy paper.
- (3) Reuse of package materials to cut costs and reduce waste.

Environmental Load Data

Production Sites

		USHIO INC.			USHIO LIGHTING, INC.	GUNMA USHIO ELECTRIC, INC.	TSUKUBA USHIO ELECTRIC, INC.	HYOGO USHIO LIGHTING, INC.	NIHON DENSHI GIJUTSU CO., LTD.	USHIO AMERICA, INC. <UAI>	CHRISTIE DIGITAL SYSTEMS GROUP	BLV LICHT-UND VAKUUMTECHNIK GmbH <BLV>	USHIO (SUZHOU) CO., LTD. <USZ>	USHIO PHILIPPINES, INC. <UPI>	TAIWAN USHIO LIGHTING, INC. <TULI>	
		Harima Division	Yokohama Division	Gotemba Division												
Input	Total energy input (GJ)	259,815	26,181	33,152	49,439	4,987	11,161	5,926	839	30,683	71,978	47,799	24,231	23,771	17,425	
	Water resources (m³)	64,849	24,143	53,287	28,063	1,472	1,879	1,057	333	24,284	8,859	3,026	35,551	240,199	4,588	
Output	Greenhouse gases (t-CO₂)	14,708	1,464	1,877	2,757	282	622	333	48	1,709	3,936	2,653	1,351	1,333	971	
	NOx (kg)	426	26	76	70	28	5	41	14	77	438	28	38	177	36	
	SOx (kg)	0	9	50	0	0	0	0	0	0	0	1	0	0	0	
	Total effluent (m³)	52,600	22,999	53,287	28,063	1,464	1,874	1,057	333	24,284	8,859	3,026	21,503	240,119	4,588	
	BOD (kg)	6,720	-	-	36	-	1	-	-	-	-	-	0	36	-	
	COD (kg)	3,627	-	-	97	-	0	-	-	-	-	-	14	240	-	
	PRTR	Chloroform (kg) : atmospheric	6,600	-	1,050	0	-	-	-	-	-	-	-	-	-	-
		: solid waste	420	-	-	154	-	-	-	-	-	-	-	-	-	-
		Molybdenum (kg) : liquid waste	5	-	-	-	-	-	-	-	-	-	-	-	-	-
	Solid waste	: solid waste	35	-	-	-	-	-	-	-	-	-	-	-	-	-
Total output (kg)		504,992	55,976	122,502	118,683	7,839	16,710	10,464	3,410	215,920	359,800	74,840	13,245	40,242	17,170	
Final disposal volume (kg)		11,565	0	16,275	17,185	5,929	8,315	8,341	0	196,937	141,970	12,040	13,245	13,832	8,867	
Effective usage rate (%)	97.7	100.0	86.7	85.5	24.4	50.2	20.3	100.0	8.8	60.5	83.9	0.0	65.6	48.4		

Nonproduction Sites

		USHIO INC.			XEBEX, INC.	USHIO EUROPE B.V. <UEBV>	USHIO HONG KONG LTD. <UHK>	USHIO TAIWAN, INC. <UTI>	USHIO KOREA, INC. <UKI>	USHIO SINGAPORE PTE LTD. <USPL>	
		Head Office	Tokyo Sales Headquarters	Osaka Branch							
Input	Total energy input (GJ)	2,122	768	237	1,312	1,988	5,513	2,558	4,459	625	
	Water resources (m³)	-	-	-	-	3,790	3,147	485	1,152	138	
Output	Greenhouse gases (t-CO₂)	325	43	13	80	117	307	164	296	35	
	NOx (kg)	86	0	4	128	128	0	390	125	6	
	SOx (kg)	0	0	0	0	0	0	0	-	0	
	Total output (m³)	-	-	-	-	3,500	3,147	485	1,152	138	
	Solid waste	Total output (kg)	15,900	8,177	1,181	11,426	172	46,206	1,605	806	1,993
		Final disposal volume (kg)	330	475	0	10,546	172	46,206	771	331	1,993
Effective usage rate (%)		97.9	94.2	100.0	7.7	0.0	0.0	52.0	58.9	0.0	

The above site data includes figures from the following sites.

USHIO INC. Yokohama Division	USHIO INC. System Company Sales Division	BLV LICHT-UND VAKUUMTECHNIK GmbH	Dipl.-Ing. Reinhold Eggers GmbH <EGG>, NATRIUM S.A. <NAT>
USHIO AMERICA, INC.	USHIO CANADA, INC. <UCI>	USHIO EUROPE B.V.	USHIO FRANCE S.A.R.L. <UFS>, USHIO DEUTSCHLAND GmbH <UD>, USHIO U.K., LTD. <UUK>
CHRISTIE DIGITAL SYSTEMS GROUP	CHRISTIE DIGITAL SYSTEMS USA, INC. <CDSU>, CHRISTIE DIGITAL SYSTEMS CANADA, INC. <CDSC>, EVENT AUDIO VISUAL GROUP INC. <EAVG>	USHIO HONG KONG LTD.	USHIO LIGHTING (HONG KONG) CO., LTD. <ULHK>

Lighting Edge Technologies

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The Things You Can Do with Light!

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<http://www.ushio.co.jp/en/>

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Tokyo 100-8150, Japan

For comments or questions regarding Ushio's *Environmental Sustainability Report 2007*,
contact: kankyo@ushio.co.jp



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