

ENVIRONMENTAL REPORT 2004



Company Overview (as of March 31, 2004)

Corporate Name: Olympus Corporation

Date Established: October 12, 1919

Location of Head Office: Shinjuku Monolith, 2-3-1 Nishi-Shinjuku, Shinjuku-ku, Tokyo 163-0914, Japan

Phone: +81-3-3340-2111

Business Areas: Manufacturing and Marketing of Medical, and Health-care, Imaging, Information, and Industrial related Equipment including Digital Cameras, Film Cameras, IC Recorders, Magnet-optical (MO) Drives, Binoculars, Gastrointestinal Endoscopes, Endosurgery Systems, Endotherapy Accessories, Ultrasound Endoscopes, Biological Microscopes, Clinical Analyzers, Genome Analysis Systems, Information Equipment, and Industrial Endoscopes and Industrial Microscopes.

Capital: 40,832 million yen

Number of employees - consolidated: 28,857 Number of employees - unconsolidated: 5,470

Sales - consolidated: 633.622 million ven (FY2004)

Sales - unconsolidated: 425,184 million yen (FY2004)

Company Organization Chart

On April 1, 2001, Olympus implemented an in-house system to make management more efficient and take advantage of the synergy generated by reorganizing business units to respond quickly to customer needs. In this connection, the board of directors was modified. Promotion of changes in the awareness of Olympus employees is the key to successful reform.

Organization

Board of Directors	Board of Auditors
Chairman	
President	
	Imaging Systems Group
	Medical Systems Group
	Life Science Group
	Industrial Systems Group
	Corporate R&D Center
	Future Creation Laboratory
	Intellectual Property & Licensing Division
	Corporate Center
	Corporate Planning Division
	BPI-PJ (Business Process Innovation)

This report covers (domestic manufacturing facilities)					
Olympus Corporation	Technology Research Institutes (Hachioji) Hinode Plant Ina Plant Tatsuno Plant				
Affiliated Production Companies of Olympus Corporation	Aomori Olympus Co., Ltd. Aizu Olympus Co., Ltd. Olympus Opto-Technology Co., Ltd. Head Office Omachi Branch Sakaki Branch Mishima Olympus Co., Ltd. Shirakawa Olympus Co., Ltd. Okaya Olympus Co., Ltd.				

Period covered: Fiscal Year (FY) 2004 (April 1, 2003, to March 31, 2004) Number of Employees: 5,728 (as of March 31, 2004) * Tokyo Kinzoku Kyowa Plant was dissolved in March 2003.

The Olympus Group's Main Operating Bases (As of March 31, 2004) lanan Olympus Corporation Head Offiice Technology Research Institutes (Hachioji) Hinode Plant Ina Plant Tatsuno Plant Olympus Sogo Service Co., Ltd. Aomori Olympus Co., Ltd. Aizu Olympus Co., Ltd. Olympus Opto-Technology Co., Ltd., Head Office Olympus Opto-Technology Co., Ltd., Omachi Branch Olympus Opto-Technology Co., Ltd., Sakaki Branch Olympus Opto-Technology Co., Ltd., Hachioji Branch Olympus Logitex Co., Ltd. Mishima Olympus Co., Ltd. Shirakawa Olympus Co., Ltd. Okaya Olympus Co., Ltd. Olympus Engineering Co., Ltd. Development Manufacturing Sales Olympus Systems Co., Ltd. Service NovusGene Inc. Olympus AVS Co., Ltd. Olympus Medical Engineering Co., Ltd. Repair and Maintenance Leasing Operational Support Distribution Olympus Leasing Co., Ltd. KS Olympus Co., Ltd. Parts Procurement Opnotech Co., Ltd. AOI Technology Inc.

- System Development
- Software Development

America

- Olympus America Inc.
- Olympus America de Mexico, S.A. de C.V.
- Olympus Latin America, Inc Olympus Optical do Brasil, Ltda.
- Olympus Integrated Technologies America Inc.
- AOI Technology U.S. Inc.
- Olympus Industrial America, Inc

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 Olympus Europa GmbH Olympus UK Ltd. (Operating Company n KeyMed (Medical & Industrial Equipment) Limited KeyMed (Ireland) Ltd. Algram Group Ltd. Olympus Sverige AB Olympus Schweiz AG Olympus Austria Gesellschaft m.b.H. Olympus Deutschland GmbH Olympus Diagnostica GmbH Olympus Endo-Repair Europe GmbH Olympus Biosystems GmbH Olympus d.o.o. Olympus d.o.o. Olympus d.o.o.
 Olympus CaS, Sp0i.S.I.O. Olympus Danmark A/S Olympus Italia S.R.L. Olympus Finland OY Olympus Estonia Oue Olympus Nederland B.V. Olympus Medical Care (Hungary) Kft. Medical Service Limited Liability Company. Olympus Endoterapia Sp. z o.o. Olympus Endoterapia Sp. z o.o.
 Olympus Polska Sp. z o.o. Olympus Endoterapia Sp. z o.o. Olympus Optical AB
 Olympus Optical Espana S.A. Olympus Service Facility Portugal Lda. Oneiros Technologias de Infoemacao, S.A.
Asia and Pacific
 Olympus Singapore Pte Ltd. Olympus Technologies Singapore Pte Ltd. Olympus Australia Pty Ltd. Olympus New Zealand Limited Olympus Asset Management Limited Olympus (Shenzhen) Industrial Ltd. Olympus Beijing Industry & Technology Limited Olympus Taiwan Co., Ltd. Olympus (Thailand) Co., Ltd. Olympus Korea Co., Ltd. ODNK Co., Ltd.

- Olympus (Malaysia) Sdn. Bhd
- Olympus Optical Technology Philippines, Inc.



Business Profile of the Olympus Group



Operating Profit and Profit for the Term



Consolidated Net Sales Shared by Fields in FY 2004



Consolidated Net Sales Shared by Regions in FY 2004

Summary of this Report

- Olympus Environmental Report 2004 covers the Olympus Group worldwide. Data on environmental load was tallied mainly based on that of domestic manufacturing facilities, except that data on CO₂ emission and environmental accounting at the Schenzhen Plant, China, were included in this report in connection with energy saving.
- The Report features the following:
- Establishment of Olympus Eco-product Standards and environmentally conscious product marketed in compliance with these Standards.
- 2) Waste separation, disposal and recycling activities were promoted to implement the Zero emissions in all of our domestic R&D, production and distribution sites.
- "Site Report" illustrates individual sites' unique efforts as an environmental impact data in each domestic and overseas.
- 4) The Report was strengthened as a sustainability report by adding pages for "Personnel System and Human Resource Development" to meet social requirements.

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Message from the President

It is essential for corporate management to share the same concept of values with society and create new value through its business activities. Taking "Social IN" (Social Value in the Company) as the basis of its management philosophy, the Olympus Group has been conducting business activities to fulfill Corporate Social Responsibility (CSR). Pursuing a positive approach to environmental issues is part of CSR activities leading to new value creation. The Basic Environmental Plan 2002 entered its second year amid great support, focusing on the development of environmental technology and environmentally conscious products, and we released environmentally conscious products which were manufactured in compliance with Olympus Eco-product Standards. These products include the SZX7/SZ61, a stereo microscope, the OLYMPUS E-1 digital single lens reflex camera, and the IPLEX MX, an industrial video scope. All products have reduced environmental burdens while maintaining high performance and efficiency.

The challenge of achieving Zero emissions was accelerated greatly in plants and facilities. All domestic development and manufacturing facilities have met Olympus Zeroemission Standards, with the target of reducing the volume of landfill after intermediate processing within 1% or less of total amount of emissions. Remarkable improvement has been made in recycling waste at these facilities.

To promote group-standardized environmental management, we established environmental policies for the Olympus Group and acquired ISO 14001 certification to promote corporate environmental management. I, as the president, play an important role as the superintendent of this environmental management system.

Corporate business activities may place a considerable load on the global environment. Many areas exist for improvement, including energy and resource savings, the development of nontoxic products, and the recycling of natural resources. Upholding the corporate slogan "Your Vision, Our Future," we are addressing new value creation and implementing business activities to realize environmentally aware management.



August, 2004

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Tsuyoshi Kikukawa President

Management Philosophy and Environmental Principles for the Olympus Group



Realization of Social IN

The Olympus Group has made Social IN the starting point for its management philosophy.

Social IN means the realization of a healthy and happy life for members of society in harmony with society,

the sharing of common values and the proposal of new values through business.

The basis of our action is to change way of thinking by pushing the boundaries and by fully embracing customer-oriented action.

Olympus Environmental Principles

This reflects Olympus' basic ideas for solving environment problems.

In accordance with its goal of being an excellent corporate citizen, Olympus drafted the Olympus Environmental Principles in August 1992 to clearly articulate its basic positions on environmental issues and to set ambitious environmental protection goals, thereby promoting enhanced environmental protection activities.

This was determined by a management conference following the deliberation of a company-wide environment committee.

Environment Protection Declaration

Olympus, respecting nature and the health and safety of mankind, has resolves through its technological development and through adopting ecologically compatible business practices to contribute to the re-establishment of a healthy environment and a society in which sustainable development is possible.

Guideline for Environmental Action

In all business activities, Olympus will give priority to environmental protection and will apply itself with dedication to this task both on an organizational and an individual basis.

1. Technology Development

We will develop products and production technologies with a careful and conscientious regard for safety and environmental protection. Furthermore, we will make the results of such developments available to everybody.

2. Drawing up Norms and Assessing Results

We will take the initiative in setting up our own standards and norms. We will assess the environmental impact at each stage of our operations from development through to production and sales.

3. Protection of Natural Resources

We will make a united effort to conserve natural resources and save energy. At the same time, we will push forward with recycling activities such as the retrieval of discarded materials and the reuse of resources.

4. Activity Support

We will cooperate with environmental measures recommended by government bodies. We will treat regional and international environmental protection activities with understanding and will actively participate in and support them.

5. Education and Total Staff Participation

We will publicize and engage in other activities with the purpose of informing all Olympus staff of the need for environmental protection. We will encourage each and every staff member to increase his or her understanding of environmental protection activities at home, at work, and in the community.

6. Structure to Promote Activities

Under our director in charge of environmental protection, we will make clear our responsibility to promote environmental protection. We will establish a structure through which we can take appropriate measures to deal with changes as they occur inside and outside Olympus.

Environmental Management Business Activities and Environmental Impact

Olympus seeks to grasp the adverse impact imposed on the global environment by its business activities to reduce such impact.





Imaging Systems Group



Digital Camera



Endoscope Video Information System Ultrasound Videoscope



IC Recorder

Film Camera



Endosurgery System Endotherapy Accessories

Magnet-optical (MO) Drive

Life Science Group



Clinical Analyzer

Genome Analysis Systems

Industrial Systems Group

Industrial Microscope

Industrial Endoscope







Distribution >

Sales >





Services

OUTPUT

▶P12	Pa
1,376 t	
773 t	
274 t	
103 t	
776 t	
593 t	То
589 t	
s725 t	
1,104 t	
6,313 t	
	▶P12 ,773 t 773 t 274 t 776 t 593 t 589 t s725 t 1,104 t 6,313 t

Packaging Materials	▶P17
Cardboard	1,977t
Paper	473t
Plastics	320t
Metal	1t
Glass	2t
Total	2,773t

Environmental Management

Business Activities and Environmental Impact

Environmental Management Basic Environmental Plan

Every three years, Olympus formulates a Basic 5-Year Environment Plan based on presidential policy. In FY2004, the second year of the Basic Environmental Plan 2002, we accelerated the promotion of Eco-products, Eco-facilities, and Eco-management.



Results for FY2004

$\bigcirc: \mathsf{Achieved} \quad \bigtriangleup: \mathsf{In \ work}$

Eco-products (Environmental Technology Development and Environmentally Conscious Products)

Priority Measures	Goals	Results	Self- evaluation	Related Page
Application of Product Evaluation Methods	 Introduction and Promotion of Eco-products 	Establishment of independent Eco-product Standards in three areas: microscopes, cameras, and industrial products	0	
		 The stereo microscope, digital single-lens reflex camera, and portable industrial endoscope were approved as Olympus Eco-products. 	0	p12-15
	Operation of New Green Procurement	Green Procurement Standards were reviewed and briefing sessions held for domestic and overseas suppliers starting in January, 2003.	0	p18
	Introduction of Olympus Life Cycle Assessment (OLCA)	• Eco-label, "ECOLEAF" (Type Ⅲ) on the OLYMPUS E-1 digital SLR was certified as the first in the field for this type of camera.	0	p15
Development of Environmental Technologies and its Application to Products	Application of Hexavalent Chromium- free Technology to New Products Application of Load free Solder to	 Different types of chromate treatment are under review The study on satisfying durability after zinc plating must be continued. 	0	P15
	New Products Application of Eco-class to New	 Applied to lead-free solder to new products such as the OLYMPUS E-1 digital SLR 	0	P19
	Products	Achieved an eco-glass use rate of 98.5%	0	
Development of the 3Rs for packaging materials	Formulation and Implementation of an Improvement Program for	 Adopted environmentally conscious packaging for packaging of an individual set of the OLYMPUS E-1 digital SLR 	0	
	Packaging Materials	 Adopted cardboard for endoscope carrying cases Adopted film wrapping for the microscopes to other products, to reduce packing material use 	0	p17

Eco-facilities (Challenge to Achieve Zero Emissions)

Priority Measures	Goals	Results	Self- evaluation	Related Page
Promotion of Energy and Resource Savings	 CO₂ Emissions in Japan: 6.4% Reduction, Compared to FY2001 	 CO₂ emissions at domestic facilities: The goal was not met, although a reduction of 4%, compared to FY2001, was achieved. 		
		 Eco-efficiency (consolidated net sales / CO₂ emissions) improved by 6%, compared to the previous year (The Shenzhen Plant [China] is included.) 	0	p20-21
		Assessed energy conservation at domestic plants and the plant in China	0	
Waste Reduction and more Recycling	 Achievement of Zero Emissions at Major Facilities 	Achieved zero emissions at all development, manufacturing, and dis- tribution bases	0	
	Reduced Waste by 8%, Compared	 Reduced waste by 16%, compared to FY2001 	0	p22-23
	to FY2001 Achieved Recycling Rate of 80% 	Achieved recycling rate of 94%	0	
Elimination of Hazardous	Total Elimination of Chlorine-based	Implementing alternatives to dichloromethane	0	
Substances, Reduction of	Organic Solvent in FY2005	Working at individual facilities to eliminate hexavalent chromium	0	p19
	Elimination of Hexavalent Chromium	Completed introduction lead-free soldering to the OLYMPUS E-1 digital SLR processing line at the Tatsuno Plant	0	p24
	Introduction of Lead-tree Soldering Reduction of Environmental Risks	Reduced soil contamination at the Okaya site and conducted over- seas environmental risk assessment	0	p25

Eco-management (Promotion of Integrated Environmental Management for the Olympus Group)

Priority Measures	Goals	Results	Self- evaluation	Related Page
Global Development of Environmental Management	Group Evaluation Based on Eco- efficiency	- Performed efficiency evaluations using data on \mbox{CO}_2 emissions and net sales	0	
	Extension of ISO14001 to the Whole Olympus Group	Started preparation for implementing the Basic Environmental Plan 2005	0	p10
		 Scheduled units acquired ISO 14001 certification Olympus Logitex, ODI (Olympus Diagnostica GmbH [Irish Branch]), the Olympus Corporation Environmental Management System and KS Olympus 	0	p · · ·
Better Environmental Communication	 Substantial Environmental Home Pages and Environmental Reports Participation in outside Eco-exhibi- tions 	 Updated the home page into an HTML format in October Introduced environmental reports in Chinese Participated in Ecoproducts 2003 Exhibition 	0 0 0	p28-29

Environmental Management Environmental Accounting

In FY2000, Olympus introduced environmental accounting in order to assess costs and effects of environmental protection, and has implemented it to promote environmental management.

Costs and Effects on Environment in FY2004

The environmental cost in the FY2004 was tabulated, based on the Environmental Accounting Guidelines (2002 edition), of the Ministry of the Environment of Japan. Cost was calculated to include the Shenzhen Plant, one of the largest overseas production bases, in addition to domestic manufacturing facilities. The environmental cost in FY2004 was 1.62 billion yen, up 21% from the preceding year, and capital investment totaled 420 million yen, down 18% from the previous year. Major investments in equipment such as high-efficiency transformers, energy-saving air conditioners, etc., for preventing global warming accounted for 50% of total capital investment. Expenses for collection of products, development of lead-free technologies, and prevention of global warming and reduction of waste increased. One-time ex-



penses were incurred from improvement in recovering polluted soil at the Okaya site, found by the soil investigation in FY2003.

In connection with environment conservation, CO₂ emissions increased from the preceding year, although intermediate waste treatment by contract decreased 67% from a year earlier due to accelerated zero emissions.

In an economic effect of environment protection, energy cost was 1.75 billion yen, down 3% from the previous year. The charge for intermediate waste treatment by contract was 15 million yen, down 65% from a year earlier due to accelerated Zero emissions.

					01111. 1011
Grouping	Environment Load Index	FY2003	FY2004	Change from Previous FY	Ratio of Change
Effects in Business Place Areas	CO ₂ Emission	64,263		2,028	3%
	Waste Intermediately Treated by Contract	963	315	-648	-67%
	Copy Paper Purchased	133	127	-6	-5%

Volume Effects Involved in Environmental Conservation

Unit: millior						
Grouping	Description of Effects	FY2003	FY2004	Change from Previous FY	Ratio of Change	
Cost Reduction	Energy Cost	1,800	1,753	-47	-3%	
	Waste Intermediately Treated by Contract	43	15	-28	-65%	
	Cost of Copy Paper Purchased	21	19	-2	-10%	
Income	Trading of Recycled Valuable Articles	16	20	4	25%	

Economy Effects Involved in Environmental Conservation

Unit: million yer

Linit: top

Crouping		Min Dutate	Related	Amount of Capital Investment			Amount of Cost		
	Grouping	Major Projects	Pages	FY2002	FY2003	FY2004	FY2002	FY2003	FY2004
B	Prevention of Public Nuisance	Replacement of underground tanks with above-ground tanks	p25	59	105	60	226	364	187
Cost insid	Global Environmental Conservation Cost	Installation of energy saving equipment (high-efficiency transformers, etc.) to prevent global warming	p20-21	57	353	211	22	121	302
'ea	Resource Circulation	Reduction of waste and promotion of a recycling drive (wastewater recycling equipment, recycling cost, etc.)		46	14	51	151	280	243
In Upstream and Downstream		Collect and reuse of products (reuse of films for endoscope)	p22-23	0	0	19	13	43	109
Cost	of Control Activity	Management and operation of environmental management	р09-11 p32-39	14	40	0	257	292	290
Cost Deve	of Research and opment	Development of environmentally conscious technologies (lead-free technology, etc.)	p12-16	0	0	77	316	225	413
Cost	of Social Activities	Premises layout and greening	_	6	0	0	93	9	1
Cost Enviro	for Damaged onment	Recovery from soil contamination at the Okaya site	p25	0	0	0	2	1	73
	Total			182	512	418	1,080	1,335	1,618

Olympus Environmental Report 2004

Environmental Managemen

Environmental Accounting

Scope: Olympus Corp. and affiliated production companies in Japan, including the Shenzhen Plant (China) from FY2003 on. Period of calculation: April 1 to March 31 next year, each

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Environmental Management Environmental Promotion System

Olympus acquired ISO 14001 certification for the Olympus Corporation Environmental Management System to strengthen and promote environmental management.

Organization of Promotion

Olympus strives to promote company-wide environmental activities the under exclusive control by the President. The Olympus Corporation Environmental Management System is run by an organization consisting of Director Responsible for Environmental Affairs, the Corporate Planning Division, Risk Management Bureau, Olympus Group Environment Committee, Facility Environmental Affairs Administration Meeting organized by general managers of facilities, and Olympus Group Environmental Secretariat. The Eco-products Approval Committee was established in FY2004 to certify Eco-products (page 12).

Each Group center and facility addresses environmental issues under the Olympus Corporation Environmental Management System directly reflecting top management policy. Environmental management organizations are formed at the company center, facilities, and companies incorporated overseas corresponding to the Olympus Corporation Environmental Management System (Groups, Centers Environmental Management Organization, Facility Environment Management Organization, and Local Overseas Subsidaries Environmental Management Organization, respectively).

The Olympus Corporation Environmental Management System operates as the core of the Olympus Group, under which the mid-term environmental plan, and annual environment policy, etc., are drafted. In FY2004, Olympus received ISO 14001 certification for the Olympus Corporation Environmental Management System (box at right) (page 10).

Executive Management Committee President Chief Executive o Environmental Management in th Olympus Group of the Corporate Planning Risk Management Division Director Responsible for Environmental Affairs Person Responsible for the Environmental Management in the Olympus Group Olympus Group Environmental Secretariat (Environmental Development Olympus Group Environmental Committee As an advisory panel for company environmental measures, this committee drafts and deliberates measures for nvironmental affairs at the corporate level. Department) Improvements to and operation of the vironmental management system of the whole Olympus Group Olympus Group Environmental Secretariat Meeting Facility Environmental Affairs Administration Meeting Eco-products Approval Committee This committee evaluates To deliberate priority the degree of product compliance with the Eco-product Standard measures and key problems at branche product Standard (environmentally conscious standard) and (dges whether items can be approved as Eco-products. this meeting is responsible for solving general problems at branches to develop practical company-wide environment policies Facility Environmental Secretariat Meeting The Olympus Corporation Environmental Management System Groups, Centers, ronmental Management Organization Facility Environment Management Organization cal Overseas Subsidiaries vironmental Management Organization Enviro ■The Olympus Group Environmental Management Sy President Risk Management Supervisor Task Force Risk Management Risk Management Supervisors of Committee Groups, Centers, Facilities and Affiliates Chaired by President Risk Management Bureau Risk Management and Promotion Supervisors of Groups, Centers, Business Places and Affiliated Companies Risk Management Promotion Committee Chaired by Risk Manage Bureau Manage Groups, Centers Facilities and Affiliates Risk Management

Risk Management

As economic activities by corporations increase, we have more occasions to encounter unexpected crises due to changes in social systems and awareness. Olympus has appointed the President as the Risk Management Supervisor and has formulated crises management rules for standardized control of crisis information company-wide both in order to prevent the development of a crisis and to promote the early solution of problems, should they arise. These rules apply to environment at risk managements as to enhance environmental protection (page 25).

Olympus Environmental Report 2004

Environmental Management Environmental Management System

The Olympus Group uses ISO 14001 environmental management as basic environmental management promotion, and encouraged Group-wide implementation in FY2004.

ISO 14001 Certification

The Ina Plant, a production facility, acquired the Group's first ISO 14001 certification, followed by production and development facilities and overseas manufacturing sites. Major development and production facilities in Japan obtained ISO 14001 certification by FY2000, and certification for 10 facilities has been renewed.

In FY2004, certification was granted to Olympus Logitex, and KS Olympus (a sales affiliate) and the Olympus Corporation Environmental Management System. Facilities developed environmentally conscious products, energy saving, and reduced waste through improvement via environment management.

Among overseas production affiliates, certification was acquired by Olympus (Shenzhen) Industrial Ltd. in China, Olympus Winter and Ibe GmbH (OWI) in Germany, and KeyMed (Medical and Industrial Equipment) Limited in the UK. In FY2004, Olympus Diagnostica GmbH's Irish Branch (ODI) acquired certification.

ISO 14001 Certification for the Olympus Corporation Environmental Management System

ISO 14001 certification prompted an intensive management review by the President and encouraged innovation in Plan-Do-Check-Action in the course of the implementation of the Midterm Environmental Plan and Annual Environmental Policy. We implemented environmental risk management, including a Risk Management Bureau, to incorporate environment management. Since ISO 14001 certification was previously acquired facility by facility, the Olympus Corporation Environmental Management System is unique and effective for company-wide environmental promotion, according to certification authorities.



Interview at examination attended by President Kikukawa (second from left)

ISO 14001 Certification by KS Olympus Co., Ltd.

KS Olympus, an Olympus domestic sales agents handling Olympus medical endoscopes, microscopes, industrial equipment, clinical analyzers, etc., has 24 business branches, including Head Office. In June 2003, an Environmental

Activities Promotion Committee headed by its president was established. As a result of top-down activities, the company established environmental management system targeting all branches and employees. KS Olympus obtained certification as the first Olympus sales affiliate, followed by the Group's largest number of branches which received certification at the same time.



Olympus Diagnostica GmbH [Irish Branch] (ODI) ISO14001 Certification

ODI uses approximately 400 different chemicals as the raw materials to produce its products. The management of these raw materials is a key issue for the company. We continually improve our environmental compatibility through the following initiatives, waste vendor consolidation, installation of above ground chemical storage tanks and piping, revamp and quality review of our material safety data management process, and implementation of chemical risk assessment for the company. The auditor commented, "Very impressed with the technical knowledge and expertise of the people met and the obvious enthusiasm and commitment of the workforce which will be a source of strength to the Environmental Management System going forward. The company has in place the secure foundations of an effective

Environmental Management System. A comprehensive set of Environment objectives, targets and associated programs are in place driving continual improvement in company environmental performance and overall sustainable development."



Facility	Location	Date of Certification
Ina Plant	Ina-shi, Nagano	February 1997
Tatsuno Plant / Okaya Olympus Co., Ltd.	Tatsuno-machi, Kamiina-gun, Nagano	February 1998
Hinode Plant	Hinode-machi, Nishitama-gun, Tokyo	July 1998
Aizu Olympus Co., Ltd. / Opnotech Co., Ltd.	Aizu-Wakamatsu-shi, Fukushima	October 1998
Shirakawa Olympus Co., Ltd.	Nishigo-mura, Nishishirakawa-gun, Fukushima	October 1998
Aomori Olympus Co., Ltd.	Kuroishi-shi, Aomori	November 1998
Olympus Opto-Technology Co., Ltd., Sakaki Branch	Sakaki-machi, Hanishina-gun, Nagano	December 1998
Mishima Olympus Co., Ltd.	Nagaizumi-cho, Sunto-gun, Shizuoka	June 1999
Olympus (Shenzhen) Industrial Ltd.	Shenzhen, China	September 1999
Technology Research Institutes (Hachioji)	Hachioji-shi, Tokyo	March 2000
Olympus Winter & Ibe GmbH	Hamburg, Germany	May 2001
KeyMed (Medical & Industrial Equipment) Limited	Southend-on-Sea, United Kingdom	March 2002
Olympus Logitex Co., Ltd.	Kawasaki-shi, Kanagawa	November 2003
The Olympus Corporation Environmental Management System	Nishi-Shinjuku, Shinjuku-ku, Tokyo Hachioji, Tokyo	January 2004
Olympus Diagnostica GmbH, Co.	Clare, Ireland	January 2004
KS Olympus Co., Ltd.	Hongo, Bunkyo-ku, Tokyo	March 2004

■ISO 14001 certifications for the Olympus Group (as of March 31, 2004)

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Environmental Management Environmental Education

It is important to enhance individual employee environmental awareness to ensure environment protection for establishment of a sustainable society. Olympus provides environmental education to everyone from new employees to management, together with environmental awareness training.

Environmental Education System

Olympus provides environmental education to eligible personnel, business units, and facilities domestic and overseas, consistent with individual responsibilities. Training includes acrossthe-board education mainly conducted by the Human Resources Development Center of the Human Resources Department and the Environment Development Department. Facility-specific education is given mainly by plants, and education by independent education institutes.

Company-wide and Facility Education

An internal auditor orientation course has been held at least twice a year as part of company-wide training since 1997. In the intervening 6 years, the 24 sessions have been attended by 526 participants.

As part of company-wide education, the company magazine runs a series on environmental management covering environment-related topics.

Each facility promotes environmental education with its own business activities.







Olympus Eco-forum

Following FY2003, a panel exhibition introducing environmental activities by domestic and overseas facilities, a debriefing session, and a lecture by a visiting lecturer were held on September 10 and 11, 2003. Inhouse environmental awards were made to outstanding panel presentations.





Overseas Education

Environmental problems may arise globally, and Olympus prepares through environmental education and awareness training at overseas facilities.

At Olympus America Inc., information is shared with employees via an intranet.

At KeyMed (UK), environmental issues are introduced in a corporate brochure distributed to new employees.





Personnel Environment-related Qualifications

Each facility sets internal standards and systematically educates legally qualified personnel in the environment and labor safety and health to secure the required number of staff members.

Qualification		Number of Actual Persons	Internal Standard	Number of Statutory Persons
	Air	35	16	2
Pollution Control	Water Quality	95	29	12
Managers	Noise	17	5	0
	Vibration	15	3	0
Senior Pollution Control Ma	anager	1	0	0
Manager of Industrial Wast Requiring Special Treatmer	e nt	58	13	13

Number of Environment-related Qualified Persons

Product-Related Measures

Creation of Environmentally Conscious Products

Ideal environmentally conscious products creating new value are defined by Olympus, which has been creating environmentally conscious products to reduce the environmental burden throughout the product life cycle, the procurement of raw materials, manufacturing, distribution, and customer use to after-sales services and product phase-out.



Olympus Eco-products

In FY2004, we focused on developing Olympus Eco-products under new Olympus Eco-product standards for environmentally conscious design.

Olympus Eco-product standards set out product environmental provisions uniquely advocated by Olympus, including substitution with safe chemicals, the development of products with increased energy saving, and the promotion of a circulation-oriented society via 3Rs for ideal environmental conscious products and maintenance of substantial product assessment and disclosure of product-related environmental information.

Products meeting these standards are defined as Olympus Ecoproducts after evaluation by the Eco-products Approval Committee and approval by the Director responsible for the Environmental Affairs. The Olympus Eco-product mark + 1) is placed on approved products and product environmental information disclosed in product catalogs and on the Olympus home page. Environmentally conscious products meeting Olympus Ecoproduct Standards were first marketed in FY2004.

Definition	Standard
Environmental Protection and Safety	Substances Prohibited or Use-restricted in ProductsEnhanced Safety in Use
Energy Saving	Reduction of Power Consumption when in Use
Resource Saving	 Lighter, Thinner, Shorter, and Smaller Products Ratio of Improved Recyclability Discretion Collecting/Recycling Indication Resource Saving in Use Resource Saving during Manufacture Longer-life Products Upgrading
Disclosure of Environmental Information	Environmental Impact Assessment/ Information Provision

Olympus Eco-product Mark



-1) The Olympus Eco-product mark is certified and registered for environmentally conscious products designated by Olympus as Type II Eco-label products.

ECO-PRODUCTS

Olympus Eco-product Standards

Olympus Environmental Report 2004

Product-Related Measures Olympus Eco-products (1)

Realized light-weight, rigid products and saved resources by adopting structural analysis design.



Environmentally Conscious Design of Accessories

A compact incident-light/transparent lighting unit -1) was developed as an example of electricity-saving accessories using a white LED as the illumination source to cut electricity consumption to one sixth that of conventional lighting units and to realize a product life 12 times longer than conventional products.

➡ 1) The lighting stand is not certifiable as an Olympus Eco-product.



White LED lighting unit

Product-Related Measures Olympus Eco-products (2)

Dramatically improved performance reduces size, weight, and electricity consumption.

Certified as an Olympus Eco-product: IPLEX MX, an industrial video scope (endoscope)

The IPLEX MX, the industrial video scope features improved performance and reduced size and weight. It is designed to be a portable observation device for field operations at high altitudes and work sites with limited space, and marketed as a certified Olympus Eco-product.

Life Cycle Consumption	(kg-CO2)
and Emissions	100 99.98
Global warming	90
(converted to CO ₂)154kg	80
Acid rain	70
(converted to SO ₂)0.28kg	60
Eutrophication	50
(converted to phosphate) 0.02kg	40
Depletion of natural resources	30 28.00
(converted to iron ore) 128kg	20 22.57
Energy	10
(converted to crude oil) 54kg	0.00 0.09 3.14
Photochemical oxidant	Manufacture Manufacture Assembly
(converted to ethylene)	of raw of of Distribution Use Disposal
	materials components components
Energy consumption2,930MJ	Global warming (converted to CO ₂)
■IPLEX MX LCA	

Main Eco-product Features



Reduced Size and Weight for High Portability The IPLEX series followed 3 generations of 3R design. The scope and main unit make an all-in-one package. The main unit is about one tenth the size of the first-generation IPLEX and weight, at 4.6 kg, was about one fifth that of the previous model, dramatically saving resources.

Certification of Olympus Eco-products

In FY2004, under self-declared design standards for environmentally conscious products enacted in FY2003, we started inhouse certification of Olympus Eco-products.

The Olympus Group Environmental Secretariat initially examines certification of product development and meeting of design standards for environmentally conscious products category by category. Three applications were certified in FY2004, and accredited.

Assessment of Environmental Impact under Olympus Life Cycle Assessment (OLCA)

Quantitative assessment of environmental load is a key to creating Eco-products and promoting Eco-management. To adopt this

quantitative assessment, the manufacturing technology unit developed an easy-touse LCA tool similar to the OLCA and trained those engaged in development at the Production Engineering Division.



In-house OLCA Training

Product-Related Measures

Olympus Eco-products (3)

Implementing lead-free soldering and environmentally conscious lead-free glass. We achieved the first ECOLEAF certification in the field of digital single-lens reflex camera.

Certified as an Olympus Eco-product: **OLYMPUS E-1 Digital SLR, an interchangeable** lens type digital single lens reflex camera Featuring 4/3 image pickup and an interchangeable lens mount, the OLYMPUS E-1 Digital SLR = 1) saved energy and resources. The new "Four-Thirds System" (page 16) is advocated by Olympus. ➡ 1) Eco-product certification applies only to the OLYMPUS E-1 Digital SLR unit. Lead-free Zuiko Lens Series **Main Eco-product Features**

Use of Lead-free Soldering

Lead-free soldering with tin and zinc is used for major electrical circuit boards. We plan to selectively use lead-free soldering with tin, silver, or copper based on the thermostable reliability of the surface-mounted component.





Use of Lead-free Lenses Lead-free lenses are used

for all types of optical lenses and prisms.

Mercury-free Backlight Source for Liquid Crystal Display

A white LED is used for the backlight source of liquid crystal monitors to save energy and eliminate mercury

Resource Saving, Using Secondary Batteries for **Power Supplies**

Resource-saving lithiumion batteries, rechargeable 500 times, are used.

Data on Environmental Impact Assessment under LCA

ECOLEAF is used to disclose product environmental information managed by an external organization of the Ministry of International Trade and Industry, the Japan Environmental Management Association for Industry (JEMAI: http://www. jemai.or.jp). ECOLEAF is managed, based on international standards. Type II labeling computing environmental product load, based on LCA discloses quantitative data. Products are quantitatively evaluated for environmental consciousness using this data. The OLYMPUS E-1 Digital SLR first achieved the Type Ⅲ ECOLEAF label for digital single-lens reflex camera. = 2)



2) Camera and accessories. Interchangeable lenses and other separate accessories are not included

Examples of Environmental Technology Development

Olympus is developing products, manufacturing technology, and the introduction of application technologies that minimize adverse impact on the environment during the product life cycle.

New Standard — "Four-thirds" System for OLYMPUS E-1 Digital SLR

Olympus advocated a 4/3 CCD sensor as the new standard for lens-changeable digital single-lens reflex cameras to produce better picture quality than 35 mm film and save on electricity. The image pickup device of the four-thirds system is about one fourth the size of a 35 mm film camera, making it possible to save electricity and downsize the camera and interchangeable lenses, saving resources. A digital four-thirds camera provides the telephotographic effect of a 600 mm lens with the 300 mm lens of a 35 mm film camera.



Generally speaking, the full-frame CCD has twice the information per pixel of the interline CCD. The E-1 uses the full-frame CCD developed exclusively for still pictures for image pickup. The large acceptance surface ensures pictures with the rich graduation available only with the full-frame CCD and pictures with the high quality of the 4/3 system.

Four-thirds System Standards achieved the Best Award for Innovative Technology Category of TIPA **-**1) European Photo and Imaging Award 2003-2004.

1) TIPA was organized by representatives of 31 photo and imaging magazines from 12 European countries and selects the top image products and technologies each year.



Rapid Prototyping (RP) for Molding: Technology for Experimental Manufacture Supporting Manufacturing at Product Development

Plastic components are used in a variety of products. At initial product development, component performance is evaluated using trial components made of plastic blocks or molded with simplified dies, and the evaluation is reflected in component and die design for commercial manufacturing of the finished products. This evaluation conventionally required repeated trial manufacturing of finished product using components made with experimental and modified dies until such products were commercially acceptable.

Rapid prototyping (RP) for molding is new plastic molding technology, combined with design support by 3D design (3D-CAD), evaluating performance at the initial stage using components with the same quality as products in commercial manufacturing. We made 22 experimental prototypes using this technology. The strength of components made from plastic blocks is evaluated with this technology and the dimensional accuracy of components to one digit is ensured compared to those manufactured with conventional simplified dies. Development of this technology also shortened production lead time 9.5 to 14 days compared to the previous 1.5 to 2 months and enables problems in preparation for manufacturing to be found early and solved.

We are developing new applications of RP for molding and new technologies, shortening verification of experimental products and reducing resources and energy.

Product-Related Measures

Examples of Environmental Technology Development





4/3type CCD



RP Mold



RP Molded Camera Chassis

Environmental Consciousness in Product Packaging and Distribution

Olympus is reducing the amount of materials used for product packaging, using recycled resources, and adopting smaller packaging to reduce environmental load due to product packaging and distribution. The integration of distribution bases for the Olympus Group is the next target for reducing the environmental load due to distribution.

Improvements in Product Packaging

Knockdown (one-piece) cardboard boxes with cushioning are used for packaging the OLYMPUS E-1 Digital SLR, realizing use of a single material, resource saving, reduced assembly, and simplified packaging. A new environment-conscious packaging design used in this one-piece packaging saved energy. This onepiece box received the Good Packaging Award - Adequate Packaging Award - at the 2003 Japan Packaging Contest sponsored by the Japan Packaging Institute. tion molding). This change in container design, together with weight reduced about 30% that of conventional containers enabled reuse of plastic cardboard due to recycling of molding material for the bottom, saving resources. The conventional plastic cardboard container could not be washed due to hollow crosssections, and dust, nap, and stains had to be removed using cleaning cloths requiring excess work. The new plastic container's bottom and inner frame are removable, and edges of the inner frame are sealed to prevent water from entering, enabling cleaning with lukewarm water. The use of identification labels removable from transport containers by lukewarm water simplified cleaning, which also saved energy. By May 2005, 400,000 plastic containers will be completely recycled.



One-piece Box Packaging for Camera and Lens

Awarded Shield and Certificate of Merit at Japan Packaging Contest

Improved Packaging for Distribution

In the last 5 years, returnable containers have been used to ship components between plants in China and Japan. Before the use of returnable containers, large amounts of cardboard were used for transport and scrapped at destinations. The consumption of cardboard has been reduced since reusable plastic (polypropylene) boxes went into use.

In FY2004, addressing the 3Rs for distribution packaging on plastic container renewal, we started using new containers for component transport reflecting findings from LCA of packaging design and improvement requirements from distribution sites.

The new 3-piece container consists of a lid (vacuum molding), removable inner frame (plastic cardboard), and a bottom (injec-



The New 3-piece Container





Mr.Masami Kurihara, Production Engineering Dept., Production Engineering Div. (in Charge of Packaging Design)

during Distribution

Mr. Yasuhiro Kawate, General Manager, Olympus Shenzhen, Futian Office

Approach to Reducing Environmental Load

The Distribution Main Center in Kawasaki, Kanagawa (Olympus Logitex Tokyo Center), started operation nearly three years ago in August 2001.

In FY2004, we reviewed regular transport, etc. Total annual transport (vehicle ton ~ travel distance in km) by cargo trucks was 9,009,511 t/km, down about 4% from the previous year. CO₂ emissions by regular transport was 793 tons, down about 3% from the previous year, thanks to the efforts of Logitex employees in reducing environmental load during distribution.

We addressed waste reduction positively for ISO 14001 certification. In-house paper was recycled by professional recyclers for reuse as cushioning for packaging.



tuffing Cushioning

To supply high-security products, Olympus is promoting "Green Procurement" working with business partners to eliminate hazardous chemicals and procure materials and components with less environmental load.

Approach to Green Procurement

Olympus has long been committed to Green Procurement and has evaluated business partners' approaches to environmental protection and surveyed chemical substances in parts and assembly components. Olympus also implemented environmentally conscious quality control including together with quality, cost, and delivery time (QCDE) control. In FY2004, we surveyed chemical substances using Ver. 1.1 in line with the Triangle Guidelines of the Japan Green Procurement Survey Standardization Initiative. Based on the result of this trial survey, we are systemizing the selection of survey items, transcription on a survey response format and its submission, control of response deadlines, etc., and building of a database using information to fulfill fully-fledged Green Procurement in line with new uniform survey format Ver. 2.0.

In line with full-fledged implementation of uniform survey format Ver. 2.0, we held briefing sessions for our business partners starting in Cebu, the Philippines, in January 2004. Sessions were then held in February and March for domestic and overseas business partners based on Olympus Green Procurement Standards for cooperation in the survey on Green Procurement.

We are carefully reviewing information on chemical substances to evaluate the inclusion or exclusion of chemical substances. We will expedite green procurement to prepare for the EU Directive 2002/95/EC (RoHS) "Restriction on the use of certain hazardous substances in electrical and electronic equipment" becoming effective in July 2006.



Olympus Green Procurement Standards Ver. 2.0

EU Directive Restricting the Use of Hazardous Substances

In April 1998, the European Commission released a draft directive on the collection and recycling of waste electrical and electronic equipment and restriction of the use of certain hazardous substances in electrical and electronic equipment (WEEE and RoHS) and the implementation of assessment concerning environmental impact of products through their life cycle (EEE). Later, the "WEEE and RoHS" directives were enacted as 2002/96/EC (WEEE) and 2002/95/EC (RoHS) in February 13, 2003. RoHS restricts the use of four heavy metals — cadmium, lead, mercury and hexavalent chromium — and two specific brominated fire retardants — PBB and PBDE — in electrical and electric equipment, and will be applied to electrical and electronic equipment in ten product categories manufactured or marketed in Europe after July 2006.

Olympus will implement design development, quality control, inventory control, and sales strategies complying with these directives.

Participation into Green Procurement Research Sharing Council

The Green Procurement Survey Standardization Initiative (JG-PSSI) was set up to reduce survey work related to the green procurement survey by standardizing lists of surveyed substances and response formats and improving response quality. Since it was set up, the JGPSSI has been introducing procurement surveys adopted in Japan to Europe (EICTA — the European Information and Communication Technology Association) and the US (EIA — Electronic Industries Alliance) targeting its authorization as a global standard. Olympus also joined the JGPSSI in preparing a standardized survey format.

Chemical substances surveyed were designated and listed through consultation with the EICTA and EIA, and Trial Guidelines were released in January 2003 and standardized survey format Ver. 2.0 in July 2003.



Briefings for Business Partners

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Product-Related Measures Substitution Using Safe Chemicals

To enable customers to use Olympus products safely, we have been eliminating the use of hazardous substances in advance of disclosure of information on safe chemicals and the enactment of regulatory regulations.

Elimination of Hazardous Substances to Ensure Environmental Protection and Security

In FY2004, we reviewed in-house standards for chemical substance use, related to design, manufacture, and procurement of Olympus products and reflected the review in environment-related substance control regulations Ver. 2. New Olympus Ecoproduct Standards were implemented based on these regulations (page 24, control performance data on chemical substances). We adopted environmentally conscious technologies in manufacturing to ensure that hazardous substances were replaced with safe substances including lead-free solder, lead-free lenses,

PVC-free and mercury-free substances, and cleaning and antiseptic solutions with low toxicity for medical equipment, powder paint, and trivalent chrome solder baths.

Category	Substances Used in Production Process
Banned Substances Level 1: Use banned at production Level 2: Used at production stopped in line with restrictions	16 Substance Groups • Cadmium Compounds • Lead Compounds • Mercury Compounds • Hexavalent Chromium Compounds • Specific Bromine-based Fire Retardants, etc.
Controlled Use Use at production and disposal at Olympus	14 Substance Groups • Arsenic Compounds • Beryllium Compounds • Nickel Compounds • Selenium Compounds, etc.

Category	Substances used in Manufacture Process
Banned Substances	32 Substance Groups
Level 1: Use banned at production Level 2: Use at production stopped in line with restrictions	 Substances specified or regulated by Ozone Layer Protection Law Prohibited substances for prevention of soil and groundwater Contamination Dust specified by Air Pollution Control Law Class 1 specified chemicals by the Law on the examination and regulation of manufacture, etc., of chemical substances, etc.
Controlled Use	Class 1 Substances specified by PRTR
controlled use at production and disposal at olympus	(excluding substances specified in the above division)

Lead-free Reflow Soldering Line

Many electrical parts mounted on circuit boards for cameras are more temperature-sensitive than ordinary electrical parts, and may be damaged if soldered with tin, silver, or copper, which have a highmelting point than lead. Having developed manufacturing techniques related to nitrogen gas-sealed re-



flow and cream solder printing, we installed a soldering process that uses tin and zinc with a low melting point in leading manufacturing facilities in Japan and China to promote lead-free manufacturing, selectively applying soldering with tin/zinc or tin/silver/copper based on the reliability of heat resistance of electrical parts.

Powder Paint

Powder painting is introduced for exterior painting of microscopes to improve conventional painting with diluted solvents that involves the release of solvents into the atmosphere and requires treatment for waste paint sludge and waste water in painting booths. Powder painting eliminates atmospheric release of diluted solvents and reduces plastic waste by recycling powder paints.



er Painting of Co



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Standards for Environment-related Substance Use

Powder Painted Microscopes

Energy and Resources Management

Olympus promotes energy saving to save energy and protect against global warming. While energy consumption by the Olympus Group increased as businesses expanded, consumption at domestic facilities decreased and the basic unit of sales demonstrated dramatic improvement.

Transition in Total Energy Use

In FY2004, energy consumption at domestic facilities was 1,151 terajoules, down 3.9% from the previous year. CO2 emissions also decreased by 5.6% from the previous year. Unit consumption to sales was down 23% from a year earlier. We strive to operate by using environmental resources more effectively. Since FY2001, we have maintained a track record of energy consumption at the Shenzhen Plant in China, our largest overseas facility. In FY2004, due to increased production worldwide, energy consumption including that of the Shenzhen Plant was 1,567 terajoules, a 3.9% increase from the previous year.

In FY2004, determining energy consumption by 10 domestic facilities and the facility in China and consulting personnel responsible for equipment at manufacturing facilities about the performance of inspection of transformer station, pumps, motors, air compressors, lighting, air conditioners, manufacturing equipment, etc., and proper timing of environmentally conscious equipment replacement to implement ideas for energy-related improvement, Olympus established a plan to save energy. We are emphasizing energy saving to cope with increasing overseas energy consumption reflecting the expansion of global business.

Transition in CO₂ Emissions

Total CO₂ emissions due to manufacturing by the Olympus Group increased to 66,291 tons of CO2, up 2.6% from the previous year. Emissions are increasing as business expands. Unit consumption to sales decreased by 55% from a year earlier only at domestic facilities. We are now working to maintain production with high energy efficiency by promoting safe-energy programs, reducing energy consumption in production, installing streamlined equipment, and applying production innovations. Starting in FY2004, we are actively implementing programs for

preventing global warming by controlling CO2 emissions and nonenergy-related greenhouse gas emissions.



* We calculate the CO2 emission factor for Shenzhen similarly to domestic cases ising the factor for FY1999 prescribed in the Law concerning the Promotion of the Measures to Cope with Global Warming.

Transition in CO₂ Emissions

Items	Unit	FY1991	FY1997	FY2001	FY2002	FY2003	FY2004
CO ₂ Emissions	t-CO2	43,810	48,279	47,724	45,966	48,580	45,867
Amount of Energy	TJ	1,084	1,187	1,194	1,159	1,198	1,151
Net Sales	100 mil. yen	1,574	2,017	3,129	3,283	3,464	4,252
Unit Consumption to Sales	t-CO2/ 100mil. yen	27.8	23.9	15.3	14.0	14.0	10.8
Unit Consumption to Sales (100 in FY1997)	%		100	64	59	59	45
Crude Oil Conversion Basis	kl	28,069	30,723	30,910	30,000	31,012	29,806



■CO2 Emissions by Type of Energy Source in FY2004

* CO₂ emissions: CO₂ emissions for each year are calculated on the basis of factors specified in the FY2000 Regulations for the Law concerning Promotion of Measures to Cope with Global Warning.
* Conversion to Joules: For electrical power, factors specified in Regulations for the Law concerning Rational Use of Energy are used for each year but for other types of energy, factors specified in Overall Statistics about Energy is used.
* Conversion to crude oil: Conversion is conducted on the basis of factors specified in Regulations for the Law concerning Rational Use of Energy are used for each year but for other types of energy, factors specified in Overall Statistics about Energy is used.

Use of Energy

Energy Consumption and Energy Consumption per Unit of Net Sales

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Energy-saving Activities

Timer-controlled Operation of Blowers and Air Conditioners

Olympus Opto-Technology Co., Ltd., Sakaki Branch

Two 11 kW blowers operated 24 hours for aeration in the wastewater treatment facility. Reviewing air quantity required for wastewater treatment showed that one blower was sufficient. We installed a calendar timer for air conditioners to stop cold air intake during spring and fall, off-season. Thanks to these two measures, annual electricity consumption was reduced to 261,000 kWh.

Saving Energy for Large Air Conditioners (Cool Air Intake, Duct Bypassing, Air Conditioners)

Shirakawa Olympus Co., Ltd.

Two cool air intake air conditioners were used to cool the workplace for circuit board assembly of about 1,000 m² floor space even in winter because of heat generated through soldering. Bypassing the air conditioner duct made one air conditioner sufficient, reducing power consumption of 44,000 kWh per year.



Replacement with High-efficiency Transformers

Olympus Opto-Technology Co., Ltd., Omachi Branch

Old transformers installed over 15 years ago lost large amounts of electricity. We installed high-efficiency oil transformers, cutting electricity loss by 22% over conventional transformers and reducing electricity consumption by 40,000 kWh a year.



High-efficiency Transformers

Resource-saving Activities

Total water consumption in FY2004 was 1.91 million m³, by 22% increase from a year earlier. Copy paper consumption was 123 tons, down 8% from the previous year.



Reduction in Water Consumption

In FY2004, Shirakawa Olympus used 9,300 m³ of piped water. Since water from a nearby village was delivered to the workplace at comparatively high pressure, we decreased pressure using a pressure control valve to reduce water consumption by 1,000 m³ a year.



Shirakawa Olympus Co., Ltd.

Pressure Reduction Valve for Water

Water Circulation System

At the Ina Plant, lens cleaning equipment consumes large amounts of purified water for lens cleaning. We reduced water consumption by 1,200 m³ per year by repurifying used water, using circulation system.



Ina Plant

er Purification Equipment

Manufacturing-Related Measures Waste Management and Recycling

In FY2004, we focused on realizing our Zero emissions declaration. As a result, all major facilities in Japan achieved Zero emissions.

All Major Facilities in Japan Achieved Zero Emissions

In FY2004, we worked to achieve Zero emissions declarations at major facilities. This was accomplished by 11 major development, production, and distribution bases in Japan.

Olympus prioritized reduction of the amount of final disposal, and its criterion for Zero emissions is to reduce the volume of landfill after intermediate processing within 1 % or less of total amount of emissions. We perfected assessment standards and regulations for assessing Zero emissions.

The assessment criterion was compliance with regulations, such as consignment contracts with contractors, manifests, etc., and whether promotion at each work site succeeded and maintenance and control after achievement was sustainable.

Individual facilities separated and collected waste and promoted recycling, starting with Tatsuno Plant's achievement of Zero emissions in June and all major facilities in Japan had achieved Zero emissions by March 2004.

We issued Olympus Zero Emissions Achievement Certificates to individual facilities.

Olympus will continue to promote Zero emissions at sales and marketing sites in Japan and bases abroad.



Breakdown of Amount of Recycled Materials

Transition in Commissioned Waste Processing

To reduce commissioned waste processing, we reused and recycled waste within the company, focusing on lens sludge, waste plastics, waste acids, and waste alkalies, all unique to our company. As a result, commissioned waste processing discharged from development and production sites in Japan stood at 205 tons in FY2004, down 642 tons (76%) compared to the previous year and 2,408 tons (92%) compared to the standard year (FY1997).



Breakdown of Commissioned Waste Processing







Amount and Rate of Recycling in FY2004

Olympus counts the amount of resources recycled as the amount of those reused as resources for recycling by facilities or outsourcing contractors out of total emission materials at each facility. This amount includes materials that were sold as valuable resources.

Recycling in FY2004 was 94%, up 18% from the previous year. By looking for ways to thoroughly separate and collect waste and routes for recycling, it has become possible to recycle even waste considered to be conventionally difficult to recycle.

Waste Reduction and Recycling

Increase Reuse of Film Spools for Endoscopes Shirakawa Olympus Co., Ltd.

We are collecting and reusing endoscope film cassettes, which consist of a spool, a spring, and a winding core. Collection now stands at 100% - 6 tons annually.



Spools for Endoscope Film

Recycling Different Metal Chips into Valuable Resources Ina Plant

In addition to achieving Zero emissions, we are improving waste processing. In FY2004, we focused on reducing different types of chips from metal processing plants and set up a sectional committee within the Group to improve employee awareness of waste separation and to prepare temporary storage and plural buckets for metal chips. Thanks to these efforts, we recycled nearly 50% of metal chips weighing nearly 9 tons into valuable resources and reduced waste generation and processing costs.

Reduction of Waste Discharged by Introducing an Acid Recovery Equipment

Tatsuno Plant

To reduce waste acid discharged from plating worksites, we started operating an acid recovery equipment in November

2003. We expect to reduce discharged waste acid, classified as a specially controlled industrial waste, by about 26 tons a year.



Acid Recovery Equipment

Introduction of Waste Liquid Treatment Equipment and Reuse of Distilled/Discharged Water

Hinode Plant

Since waste liquid discharged from dicing saws used in the manufacturing line for electronic scanning ultrasonic oscillators contains lead exceeding 0.1 ppm in concentration, waste liquid had to be treated separately from general industrial water. We introduced waste liquid treatment

equipment able to process 1,200 liters a day, and produced recycled water after concentrating waste liquid without outsourcing it for disposal. We store recycled water in a tank watering to trees, washing commuter buses, etc., using a pressure pump.



Changing Aqueous Cleaning for Cutting Parts Shirakawa Olympus Co., Ltd.

When cleaning cutting parts with water, we changed from conventional cleaning to cleaning by high-pressure spraying of soft water (temperature 50 °C) to parts for removing cutting oil. We plan to cut costs by about 4 million yen a year by reducing the use of petroleum-based detergent and cleaning hours. We are thermally recycling cutting oil after collecting oil using an oil/water separator. We are also reusing soft water for cleaning.

Reducing the Number of Cardboard Boxes

Mishima Olympus Co., Ltd.

Parts for clinical analyzers are small-lot products of a wide variety procured from many suppliers. This generates much waste material such as cardboard for packaging and shock-absorbent cushioning material. Working with other firms, we made special returnable boxes for packaging corresponding to the specific shape of each part, reducing waste. We cut transport costs thanks to firms being willing to take back returnable boxes. In FY2004 alone, we reduced cardboard by about 600 kg. This also reduced the transport cost of other firms.



ecial Returnable Box Used for Packaging Folding plastic box. The shock absorbent-material inside is returnable Plastic cardboard. The shock-absorbent material is for exclusive use.

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Manufacturing-Related Measures Chemicals Management

Manufacturing lines use many different types of chemical substances, some of which could impact harmfully on the environment and health To reduce this impact, Olympus is taking different steps to reduce the discharge of chemical substances into the environment.

PRTR Surveys

We have conducted PRTR (Pollutant Release and Transfer Resister) surveys since FY2001 for 354 substances subject to the PRTR Law promulgated in FY2002. Each facility examines chemical substances whose annual handling exceeds 10 kg, and round up the result for substances handled by all facilities, total handling exceeded 100 kg.

Total handling of substances subject to the PRTR Law in FY2004 stood at 29.27 tons, down 2.50 tons compared to the previous year.

We had completely phased out trichloroethylene by March 2003, with few exceptions, by giving work environment maintenance first priority.



Transition in Handled PRTR Substances

Catalytic Decomposition of Ethylene Oxide Gas

Aomori Olympus Co., Ltd.

Ethylene oxide gas is widely used in hospitals and health clinics for sterilization. We introduced catalytic decomposition equipment for discharging ethylene oxide sterilization gas without impacting on the environment, discharging it as a harmless gas.



Decomposition and Chemical Reaction Formula

Reduction of Ethylene Glycol

Ina Plant

We looked for an alternative to ethylene glycol, and developed an alternative for all lens automatic processor lines. By eliminating the use of ethylene glycol, we reduced its use by 350 kg a year.

Material	Chamiagle	Amount	Vo	olume Release	ed	Volume	Volume	Volume	Volume	Volume
Code	Chemicais	Handled	Air	Water Area	Soil	Consumed	Recorded	Removed	Recycled	of Landfill
16	2-amino ethanol	0.54							0.54	
30	Epoxy resin of bisphenol A (liquid)	0.26	0.02			0.17		0.06	0.01	
40	Ethyl benzene	0.19	0.13					0.06		
42	Ethylene oxide	3.67	0.75	0.06			2.87			
43	Ethylene glycol	0.43						0.43		
63	Xylene	5.12	3.40					1.67	0.02	
69	Hexavalent chromium compounds	0.67						0.67		
101	Acetic acid 2-ethoxyethyl	0.30	0.02			0.11		0.17	0.00	
145	Dichloromethane *1	0.47	0.33					0.01	0.12	
207	Copper water-soluble salt	0.13		0.04		0.05		0.05		
211	Trichloroethylene *1	0.11	0.11							
224	1.3,5-trimethyl benzene	0.24						0.24		
227	Toluene	8.44	5.97					2.43	0.04	
230	Lead and lead compounds	5.12				2.83		1.52	0.77	
231	Nickel	0.36	0.00	0.03		0.23		0.04	0.06	
232	Nickel compound *1	1.91	0.02	0.24		0.74		0.62	0.29	
243	Barium and water-soluble barium compounds	0.11				0.01		0.10		
253	Hydrazine	0.12	0.06	0.06						
283	Hydrogen fluoride and water-soluble hydrogen fluoride salts	0.80						0.80		
304	Boron and boron compounds	0.24	0.00	0.02		0.03		0.19	0.00	
307	Poly (oxy-ethylene)=alkyl ether*2	0.32		0.03				0.29		
309	Poly (exy-ethylene) = nonyl phenyl ether	0.25		0.01			0.25			
	Total	29.27	10.85	0.49	0.00	4.17	3.11	9.34	1.32	0.00

*1: Dichloromethane, trichloroethylene, and nickel compounds (including nickel sulfate) are subject to survey of noxious substances.
 *2: Limited to those with number of carbons in alkyl base radical is 12 to 15 and their mixture.

PRTR Survey Result

Manufacturing-Related Measures

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Totals may not correspond to the actual sum due to rounding off

Manufacturing-Related Measures

Risk Management

In FY2003, we cleaned up the Okaya site, where contamination was confirmed to exceed the standard, and implemented soil improvement measures. We are also developing, positively, environmental assessment abroad.

Cleaning up Soil at the Okaya Site

We cleaned up soil at the Okaya site, where contamination of soil was found by a general soil survey in FY2003. Soil in which trichlorethylene exceeded the environmental standard was

placed in a sealed building to volatilize the substance. Soil was collected, cleaned, and returned to the original site. Soil containing heavy metals was broken up and replaced with clean soil. Contaminated soil was reused as cement material, completing cleanup.





Soil Cleanup Process

Emergency Training

Up to last year, we reported simulated training in emergencies at each facility. To obtain ISO 14001 certification in January 2004, for the Olympus Corporation Environment Management System, we implemented emergency training to improve risk management, collectively managing risk information company-wide. We checked the company's intranet Emergency Report System to see if information is accurately and unfailingly transmitted through the emergency communication route and each contact point. Linked with simulated emergency training at the Tatsuno Plant, the risk management section, the Public Relations & Investor Relations Department (Main Office, Shinjuku Monolith Building), and the Environmental Development Department joined in training, setting up countermeasures for Head Office and emergency press conferences.



Emergency Training at Tatsuno Plant

Meeting on Emergency Training at Head Office

Execution of Environmental Risk Assessment in Overseas Plants

Environmental risk was assessed at overseas plants at Olympus Optical Technology Philippines, Inc. (OPI), and at China's Shenzhen and Panyu Plants. We visited OPI affiliates to match environmental management and improvement items. In environmental assessment and environmental risk diagnosis abroad, we ob-

serve laws and regulations of the governing country and implement assessment or diagnosis by setting up, globally, stricter voluntary standards.



Preventing Air and Water Contamination

The Olympus Group observes laws and regulations and ensures that individual sites prevent air and water from being contaminated by setting voluntary control standards severer than applicable regulations for maintaining and managing environmental facilities.



Lawsuit/Penalty/Complaint

In FY2004, Olympus faced no violations of environmental laws, lawsuits, penalties, fines, or other problems whatsoever. The single complaint about noise we received related to a plant located in a semi-industrial zone we handled by upgrading the ventilation duct fan and reducing noise, even though no threshold measured near the plant was exceeded.

Social Activities

Olympus contributes to the local community and next generation at each site worldwide based on a socially responsible management concept (Social IN).

Taking Part in the Day in The Life of Africa Project as a Premiere Sponsor

In February 2002, about 100 world's foremost photojournalists, including 2 Japanese, fanned out across Africa to capture images within 24 hours, launching a magnificent project. Olympus donated to all the participating photographers full set of SLR digital camera equipment, and portable dye-sublimation printers, to fully support the project. Olympus also organized training sessions to help them familiarize with the equipment, and assembled techinical support team during the project. A photography book was published in English, French, and German. All earnings went to the African AIDS Education Fund through the Project Secretariat. Olympus-sponsored exhibitions held in Tokyo in June, in Kobe in August, in Seoul in November 2003 and in Pusan in February 2004 were well received everywhere. In September, the Third Tokyo International Conference on African Development (TICAD3) was held mainly involving the Japanese Government, UN, and NGOs. Olympus held a miniexhibition at the hall and donated several sets

of photography book .

In October, Olympus co-sponsored an exhibition with the UN Development Programme (UNDP) at UN Headquarters in New York as part of the UN's poverty-fighting campaign. At the opening ceremony where we welcomed UN Secretary-General Kofi's wife, two UN Vice-Secretaries, and others from the UN, Olympus Chairman Kishimoto donated \$33,000 earned from the exhibition in Tokyo to the Millennium Development Goal - 1). These vivid photos send out signs of hope for Africa and help make people worldwide consider issues to be faced regarding Africa, such as AIDS.

 1) In 2000, a 15-year program was adopted at the UN Millennium Summit to develop activities by setting up 8 targets: eradicating poverty and hunger worldwide, implementing elementary education, gender equality, peace, eradication of AIDS, etc. 2003 saw the start of the program.





UN Opening Ceremony From the left Wr. Mark Gumz (President, Olympus America Inc), Mrs. Nane Annan (wife of the United Vations Secretary-General), Mr. Masatoshi Kishimoto Chairman, Olympus Corporation), Mr. Ibrahim Gambari (United Nations Under-Secretary-General), Mr. Shashi Tharoor (United Nations Under-Secretary-General), Mr. John Issac (participating photographer)

Supporting WWF Japan by Nature Photo Calendar

Olympus cooperates closely with WWF Japan, the world's largest private nature preservation group. 2004 is the 19th year this Nature Photo Calendar has been published -2), and this project has securely taken root, since Olympus became a co-sponsor of WWF Japan. The calendar emphasizes environmental considerations, e.g., nonpolluting, avoiding the use of PVC wall hangings, and printing all pages on 100% recycled paper. The calendar's book format ensures that pages need not be removed each time a month begins. Income from the calendar goes to funds for nature preservation at the WWF.

2) This calendar is available only in Japan



Olympus America Inc. Colorectal Cancer Awareness

Olympus America Inc.(OAI) has undertaken numerous initiatives to increase public awareness and screening for colorectal cancer. A high-profile initiative is Olympus America's support of the National Colorectal Cancer Research Alliance (NCCRA). Recently, an OAI spokesperson presented a check for \$500,000 to the NCCRA on national television (NBC-TV's "The Today Show"). OAI also supports National Colorectal Cancer Awareness Month, an activity of the Cancer Research and Prevention Foundation, in March each year. OAI is also a sponsor of a nationwide tour of the Colossal Colon, a public outreach program for colorectal cancer awareness featuring Molly McMaster, a 27-year-old colon cancer survivor. OAI helped as a sponsor of a 20-city tour of The Colossal Colon – 3) which was open to the general public.

 Colossal Colon is forty foot long, four foot tall crawl-through replica of the human colon.



Molly McMaster, a 27-year-old colon cancer survivor and Bob Reinhardt (R) from OAI pose with The Colossal Colon

26

Company Paper ECHO Issued from Olympus Europe GmbH

pact of logging. Researchers identified the highest number of Ephemeroptera (mayflies) ever recorded in the world -10 of them previously unidentified. They named one of these "Prosopistoma Olympus," in appreciation of the help given by Olympus Schweiz AG over

Olympus UK Ltd. Support for The Julia Margaret Cameron Trust

Olympus Schweiz AG Support for Ecological Research in Borneo Forests

the years.

Olympus UK is a proud supporter of the Julia Margaret Cameron Trust at its base at Dimbola Lodge on the Isle of Wight. Julia Margaret Cameron was a pioneering photographer of her time. In an age when women photographers were rarity, Julia Margaret Cameron shone out as a great photographer and has been much revered ever since. Dimbola Lodge is the original house that she lived in on the Isle of Wight and where she entertained other creative celebrities such as the great writer Tennyson.

The Museum of Zoology in Lausanne was one

of the institutes to take advantage of special conditions offered by our Swiss subsidiary

(Olympus Schweiz AG) to acquire a SZX12

stereomicroscope, a BX51 upright microscope

and a C-3000ZOOM digital camera for the

support of a study by the Laboratory of

Ecosystem Management (GECOS) at the EPFL (Swiss Federal Institute of Technology). 14,000 insects were collected from forest

streams in Borneo to aid in measuring the im-

The building was in need of substantial restoration which started in 1994. The restoration has brought the house back to its former glory and it now plays host to permanent exhibition of Julia Margaret Cameron's work. Not only that, but Olympus UK has been pivotal in promoting photography at this historic venue by bring photographers such David Bailey, Lord Lichfield, Barry Lategan and John Swannell to Dimbola Lodge to exhibit their photography. By bringing new and exciting photographic work to this historic venue, Olympus UK is helping to add to the cultural diversity on offer in this stunning part of UK.

KeyMed (Medical & Industrial Equipment) Limited Supporting Orphans and Road Safety in Uganda

KeyMed has established links with Mildmay International, a charity specializing in the palliative care of AIDS patients in the UK and Africa, and provides financial and practical support for orphaned and starving children suffering from AIDS in Uganda. As a result of appeals for toys, clothing and equipment, coordinated by KeyMed, 8 ~20 ft containers full of donated items from staff and the local community have been shipped to help equip Mildmay's Baby Unit, Adolescent Centre and Day Care Clinic. KeyMed is also actively involved in improving the hazardous road safety conditions in Uganda. Working in collaboration with the Ugandan Police, City Council and the Rotary Club of Kampala West, a total of 14 projects have been completed to help reduce deaths and injuries in certain accident black spots in Kampala.



Olympus (Shenzhen) Industrial Ltd., Planting Trees in Shenzhen City

December 2003, Olympus Shenzhen Industrial Ltd., participated in a tree planting exercise at the Shenzhen City International Flower and Gardening Fair. This event was held jointly by Shenzhen City and the Shenzhen City Green Fund, targeting greening and landscaping in the city. The 200 employees of Olympus Shenzhen planted 208 trees, sprinkled each with water, and promised to join together visiting the planted trees next year. People were deeply impressed by employees' sincerity and commitment.





Social Activities Social/Environmental Communication

We communicate with local communities by disseminating environmental information or taking part in local community events.

Holding Scientific Seminar for Children

Scientific seminar is for elementary and junior high school students to increase children's interest in science. In 2003, this seminar was held 4 times by volunteer employees to teach children the wonders and arcane aspects of science through optical experiments. These were received well by participants. Volunteers enjoyed seminars as much the same as the children, so calls for 30-80 volunteers are answered at once. Olympus continues to offer opportunities for children to explore science whenever possible.



Olympus America Inc. (OAI) Digital Photography Education and Outreach

OAI started a new program to bring digital photography education to students ("the photographers of tomorrow"), senior citizens and art institutions. Some of the students who have been reached through this program to date are disadvantaged youth in Philadelphia, Washington, D.C. and Tampa, Florida. In addition, digital photography programs are being presented to senior citizens as a part of an active lifestyle

and to enable them to keep in touch with family and friends. These programs are made possible through the loan or donation of Olympus equipment. OAI also supplies course materials and instructional support.



Nick Kelsh shows some of his published photographs to fourth graders at Clara Bartor Elementary School in Philadelphia.

Environmental Advertising "Expanding High Performance in Environmental Consciousness"

We acquaint newspaper and magazine readers with Olympus' thoughts on the environment, e.g., creating products that are highperformance, even for the environment.



Ecoproducts 2003 Exhibition

We displayed products at Ecoproducts 2003 Exhibition held at Tokyo Big Sight in December 2003, presenting them in three zones — the Management Zone for introducing Olympus' environmental efforts, the Product zone for introducing Type II Eco-label products, and the natural science classroom for children to cultivate interest in the environment. Most display setups were reused, and the few that could not be recycled.





Environmentally Conscious Neon Sign

New Olympus neon signs are installed in Hachioji and Ginza.

This sign expresses Olympus' "uplift" by fusing light and digital design in an environmentally conscious manner. Low-pressure inverters brighten neon luminance and use 40% less electricity than conventional neon signs.



Social/Environmental Communication

Social Activities

Environmental Report and Environmental Home Page

Olympus has been issuing an annual Olympus Environmental Report since FY2001 as a key tool in environmental communication. In FY2004, we issued the first Chinese version, joining Japanese and English versions issued the previous year, to inform more people about Olympus' environmental activities. On the updated social/environmental activities section of the Olympus home page (http://www.olympus.co.jp/jp/corc/environment/), we are disclosing content and details not covered by the Environmental Report.



Environmental Report 2003 Questionnaire: Items to be Improved and Responses to the Questionnaire

We deeply appreciate the many warm and insightful opinions and impressions to Environmental Report 2003, and are reflecting them in Environmental Report 2004.



Opinions on Olympus Environmental Report 2003			
Points to be Improved		Reflection on Olympus Environmental Report 2004 Main Relate	ed Pages
 Many more case examples should be introduced. Pages that compare efforts made at each plant, such as energy and resource saving should be increased. 	•••	We included efforts at individual facilities as domestic and overseas site reports. We indicate formats so you can compare contents of facility reports.	p32-39
• Environmentally conscious products are difficult to understand without specific products illustrated.	•••	 We indicated specific examples of Olympus Eco-products using photos. 	p12-16
Projected goals for the following year should be mentioned.	•••	 We mentioned goals to be attained in FY2005 in the Basic Environmental Plan, after reviewing it. 	p6
Environmental accounting was the only part difficult to understand.	•••	 We expanded space describing specific efforts in each cost category. 	p8
The Okaya site wants to improve soil conditions as soon as possible.	•••	We improved soil within the FY2004 budget and give results.	p25
Third-party opinions should be included.	•••	 Our current policy for preparation of the report is to in-house document facts in good faith. 	-
Good Points		ties to nick un trash Lactually witnessed such work	
Obscriptions semed better than in the 2002 edition. Obscriptions semed better than in the 2002 edition. The finished report is easy to read thanks to informative banner headlines on two facing pages or page. Very agreeable because articles focus on environmental issues, although product content is somew	one /hat	Social contribution pages helped me better understand corporate activities. You clearly mentioned environmental education from organization to practical teaching. Very understandable emphasis on considerations toward the environment and development mental technology in dealing with products.	of environ-
overoone. Information is useful to employees in charge of the environment, since specific activities are detailed. I was impressed by your efforts to contribute to the local community, such as participating in local ac	tivi-	 Actually observe that you are conducting activities such as soil surveys, moving undergro above ground, etc. 	und piping

Social Activities

Social Activities Health and Safety

Olympus is promoting the management of work safety and improved health and safety standards that go beyond simple compliance with regulations. We are promoting health by working closely with medical care and health fields and introducing new programs.

Control of Labor Safety

Each Olympus facility works toward eradicating potential disasters, such as through regular patrols, traffic safety guidance, etc., targeting zero tolerance of danger in the work environment. In FY2004, the 39 labor accidents were up 19 cases from the previous year. This was due to increased traffic accidents on the way to work.

To maintain and improve safety and a comfortable working environment, each facility measures noise and dust in the workplace and the concentration of organic solvents and chemicals in the atmosphere based on the Industrial Health and Safety Law. In FY2004, most facilities fell under the first control division, but the 9 workplaces of 5 plants, falling under the second and third divisions, indicate that noise produced by manufacturing equipment is causing problems that we are now taking measures to resolve.

Items	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004
Accidents	13	20	22	20	20	39
Accidents Resulting in Lost Days	1	5	9	7	8	7
Accidents Not Resulting in Lost Days	12	15	13	13	12	32
Lost Days	14	25	238	163	41	149
Number of Labor Acci	dents					

Categories	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004
Category 1	168	162	105	114	125	133
Category 2	8	7	1	2	4	6
Category 3	2	2	2	2	5	3
Total	178	171	108	118	134	142

Category 1: A workplace where environment management is appropriately carried out and where it is desired that current environment management processes be maintained. Category 2: A workplace where the appropriateness of environment management is midway between that of categories 1 and 3 and where it is desired that measures be taken to shift the workplace where environment management is inappropriately carried out and where it is desired that measures be taken to shift the workplace where environment management is inappropriately carried out and where it is desired that environment management processes be quickly improved.

Number of Workplaces in which Working Environment is Measured

New Physical Examinations

Starting from April 2003, Olympus introduced a new in-house physical examination for preventing lifestylerelated diseases, and strengthening screening for cancer. Major items added to conventional physical examinations are combined

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stomach pepsinogen and endoscope examination, direct chest Xrays, abdomenal ultrasound, fundus oculi examination, lung helical CT, large intestine endoscope, gynecological examination,

PSA inspection, etc. The Olympus Health Insurance Association is strengthening in-house physical examination and offers information to employees and their families through the Olympus Health Insurance Association Home Page and "Healthy People" health insurance news.

Health Backup Site "Onaka-no-Kenko.com" (Healthy Stomach.com)

Olympus has established a portal,Onaka-no-Kenko.com (Healthy Stomach.com) on digestive diseases and endoscopy for the general public. The site provides wide-ranging information on gastric health and endoscopy, from health checks = 1) answering simple questions on the In-



Onaka-no-Kenko.com" Hor

ternet to stomach conditions to be checked and the introduction of examination procedures and treatment for internal organs and specific diseases, the role of endoscopic examination, and leading-edge endoscopy.

►1) This is only a rough indication, so if you are worrying about your health, please consult your health.

Walking Campaign

Preventing lifestyle-related diseases, starting from FY2001, Olympus has set 3 months from September to November for a walking campaign and encourages employees to walk at every opportunity. In FY2004, campaign year 4, participants numbered 1,581, 87 more than the previous year, and those achieving 10,000 steps a day hit 62.7%. We open this walking campaign as a walk rally through Japan, and based on our calculation, we start at Wakkanai in the first campaign, and are expected to arrive at Hiroshima in the fourth campaign. In FY2005, the last year, in which campaign 5 is to be held, we are heading toward Kagoshima. In FY2004, we issued a certificate bearing the name and number of steps to all participants, including those who walked more than 600,000 steps (insured) or more than 728,000 steps (nonworking dependents).

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88.797	CBEEN		
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-	18	E	23
	100	-DAMES	100

Walking Campaigr

	First time	Second time	Third time	Fourth time
Number of Applicants	1,237	1,410	1,494	1,581
Number of Participants Whose Final Number of Steps is Registered	1,237	1,309	1,318	1,470
Number of First Participants	-	884	630	561
Number of Participants Who Walked 10,000 Steps a Day	486	778	810	921
Rate of Final Participants Who Completed Walking (%)	39.3	59.4	61.5	62.7

Result of Walking Campaign

Olympus Environmental Report 2004

Personnel System and Human Resource Development

Olympus is proactively creating a workplace where all employees can exert their true abilities and achieve self-actualization, and introducing personnel and cultivating special abilities and performance-based principles.

Basic Policy

Olympus plans personnel policies and Human Resource Development policies based on the basic corporate concept that the most important way to realize a value-creating corporation is through its personnel.

[Personnel Policies]

- · Respect for individuals and self-sustaining efforts
- · High expertise and morale
- Promotion of performance/ability-based assessment

[Human Resource Development Policy]

• The basic policy of ability development relies on voluntary practice, and the most basic personnel development is Onthe-Job Development (OJD), meaning self-development through job performance.

Challenge System

To help support our personnel management policies of respect for individuals and self-sustaining efforts, high expertise and morale, and promoting performance and ability-based assessment, we implemented in-house recruitment of desired personnel in 1990 and an in-house search for desired jobs in 2001. Inhouse recruitment of desired personnel is a scheme in which staff members can apply, at their own discretion and without the permission of their immediate bosses, for a recruitment request placed by any given job section, and upon acceptance through the interview, they can freely accept the offer from the job section without restriction. In-house search for desired positions is a scheme for promoting transfers within the company in which staff members look in-house for jobs they want for a year after obtaining permission of their immediate bosses. The two schemes are collectively referred to as the "Challenge System." The policy of respect for individuals and self-sustaining efforts calls especially for trusting and respecting the initiative of each individual and relies on individuals to develop their career paths and desired skills. The "Challenge System" was implemented to nurture such self-sustaining professionals.

	Number of Job Types	Number of Applicants	Number of Employees Transferred			Number of Job Seekers
1999	24	50	21	20	01	44
2000	41	47	20	20	02	32
2001	43	36	22	20	03	29
2002	69	46	22	■In-h Sta	nouse ff.over	Search for Desired the Last 3 Years
2003(June)	83	28	15	0.0		the East of rours
2003(Dec.)	92	37	16			

In-house Recruitment of Desired Personnel: Number of Staff over the Last 5 Years

Equal Gender Employment Opportunities

Olympus scrupulously avoids gender-based hiring of new graduates, irregular hiring, promotion, and salary raises. Olympus proactively employs and uses personnel with self-sustaining professional awareness, well-balanced personalities, high expertise and morale, in line with basic personnel policies of respect for the individual and nurturing of self-sustaining staff, and highly specialized skill and high morale.



Olympus College

Olympus College proactively provides business and technical courses for enhancing professionalism based on personnel policies and cultivation.

Highly Advanced Technician Development System

By systematically upgrading technique and technical ability, we target (1) pursuing high professionalism, (2) multiplying skills, (3) guiding and teaching technical employees in charge of development, (4) nurturing of

technologies and techniques, and (5) launching and guiding of jobs outside the company.

of

23

16

7

Jobs: Number o

Individual level is evaluated, based on a skill evaluation chart, and employees meeting qualifications receive a special title as high-level technicians.



Genichi Kurata of the mechanical group at the Ina Plant received an award from the Ministry of Health, Labor and Welfare and awards from sponsors in the lathe category, at the 21st Skills Grand Prix cosponsored by Japan Vocational Ability Development Association and All Japan Skilled Workers Federation).

Site Report Approaches at Home and Abroad

Each base at home and abroad approaches the environment and society based on regional considerations.

Location: 2951 Ishikawa-machi, Hachioji-shi, Tokyo 192-8507 Technology Research Institutes (Hachioji) Phone: +81-426-42-2111 (direct) Business area: Development of medical services, image, industry-related and other matters, development of components, production technology Land area: 89,552m² Gross floor area: 70,767m² Technology Research Institutes (Hachioji) is a base volunteered for the 20th Hachioji Welfare Festival in for developing products and technology for the Olym-May 2003. Booths were enthusiastically received by pus Group and is the largest facility in Japan. This visitors, and employees taught them how to make center consumed huge amounts of energy in experikaleidoscopes, demonstrated industrial endoscopes, ments or trial production, but in FY2004, the center and took photos for visitors with digital cameras. reduced electricity by 7% (450 kWh/person), promot-Crowds were attracted by the performance of the Mr.Noboru Nakano, General Affairs ing and strengthening energy-saving grass-roots activ-Olympus Japanese Drum Group "Hibiki." We distribities. The center used to discharge huge amounts of uted Eco-organic fertilizer made from kitchen waste Amount of Recycling Waste Amount of Commissioned Treatment of Waste rejected materials and waste fluid caused by trial prodischarged from restaurants in Hachioji, free of Recycling Ra (t) 1,000 (%) duction, but as a recycle activity, Technology Recharge, which was appreciated by many visitors. 91.4 74.2 search Institutes (Hachioji) recycled sludge in waste 774.8 59.3 570.0 50 fluid produced into coolant for ovens at iron mills, al-342.6 though intermediate treatment of sludge is still on 0 0 commission, and eventually improved recycling from 197.9 235.1 74% to 91%. 500 '02 '03 '04 In contributing to the local community, 20 employees Performance of Olymp Drum Group "Hibiki" Transition in Recycling Waste and Recycling Data on Records of Energy, Waste and PRTR Amount Handled (FY2004) PRTR Amount Handled Waste Energy ecycling rate (%) Recyclei amoun (t) Toluen (t) Electricity (10,000kWh) Crude oi (kl) Others (t) City gas (1.000m³) Xylen (t) (kI) (kI) basis (t·CO₂) waste (t) (t)

(t)

5.7

774.8

91.4

0.03

0.03

0.10

Location: 34-3 Hirai, Hinode-machi, Nishitama-gun, Tokyo 190-0182 Phone: +81-42-597-7111 (direct)

0.11

Hinode Plant

84

708

1

1,910

Business area: Production of medical services and industrial endoscopes and ultrasonic products

59

8,732

37.7

29.7

The Hinode Plant faces a big environmental burden due to its electricity consumption and reducing this is critical to the plant. Specifically, we are improving capacity use and operation from reduction in electricity consumption and efficient use of electricity as follows:

- 1) Execution of scheduled operation of air conditioners
- 2) Improvement of pressure control for compressors
- 3) Use of ice storage system for air-conditioning
- 4) Improved operation of air conditioners in CPU rooms

The results of these activities were evaluated highly by the Kanto Area Electricity Use Streamlining Committee, which presents awards each year for our efforts.

Based on Guidelines on Occupational Health and Safety Management System issued by the Ministry of Health, Labor and Welfare in 1999, we integrated labor safety and health activities, previously done by another organization, into our environmental management, and launched an environmental health division responsible for safety and health. We eventually integrated these two activities into cyclic Plan-Do-Check-Action.



Highest Award Plaque for Streamlining of Electricity Use



Land area: 8.486m² Gross floor area: 10.606m²

Amount of Recycling Waste Amount of Commissioned Treatment of Waste 100 100 97.9 80.5 81.9 63.9 51.5 51.9 50 50 0 12.6 11.4 50 (FY) '02 '03 '04 Transition in Recycling Waste and Recycling

Data on Records of Energy, Waste and PRTR Amount Handled (FY2004)

	Energy					PRTR Amount Handled			
Electricity 10,000kWh)	ctricity LPG CO2 00kWh) (1,000m ³) CO2 conversion basis (t·CO2		General waste (t)	Industrial waste (t)	Special waste (t)	Recycled amount (t)	Ethylene oxide (t)	Others (t)	
206	26	898	1.0	0.0	0.4	63.9	97.9	0.37	0.05

Site Repor

Ina Plant

Business area: Optics microscope production

The Ina Plant established a system based on the standard regulated by the Occupational Health and Safety Assessment Series, OHSAS-18001. The OHSAS enabled us to collectively control occupational health and safety, and environmental risks. Our Environmental Secretariat is working on integrating environmental management and health and safety management.

In communication with the local community, we take part in local events in addition to environment-related matters. At the Ina Festival every August for over 20 years, more than 200 employees participate. Citizens tell us they looking forward to our dance troupes and Neputa every year. We have been sponsoring the spring high-school Ina Ekiden Road Relay since 1996 and participate in drum performances, directing traffic

Data on Records of Energy, Waste and PRTR Amount Handled (FY2004)

(kI)

15

185

LPG (1.000m³)

5

at	the	re	lay,	etc.
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The sounds of the big drum make the start of the relay exciting and are received very favorably. The Ina Plant also picks up trash from the Tenryu River, measures 24-hour water quality, etc. We are creating communication with the local community going far beyond the framework of environmental ISO.





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Mr.Sator	u Mizutani, Genera	al Affairs

Land area: 38,863m² Gross floor area: 38,677m²

Phone: +81-265-72-1111 (direct)

Location: 5128 Oaza-Ina, Ina-shi, Nagano 396-0021



Waste			PRTR Amount Handled								
Special waste (t)	Special waste amount (t) (t) (k) (k) (k) (k) (k) (k) (k) (k) (k) (k		Trichloro- ethylene (t)	Lead compound (t)	Xylene (t)	Toluene (t)	Dichloro methane (t) Others				
2.4	374.5	97.4	0.11	0.06	0.55	0.60	0.20	1.26			

Location: 6666 Inatomi, Tatsuno-machi, Kamiina-gun, Nagano 399-0495

Tatsuno Plant

Crude oi (kl)

845

Electricity (10,000kWh)

1,119

Business area: Digital camera/liquid crystal inspection unit production, semiconductor research and development

CO

basis (t·CO₂)

6,867

wast (t)

7.8

waste (t)

0.0

The Tatsuno Plant is located at the center of Nagano Prefecture and has facilities in Tatsuno-machi and Okaya City. We achieved zero waste emissions, the most important challenge in FY2004, and recycling operation and maintenance has stayed at 99.5%. To eliminate toxic substances, we started changing conventional solder to lead-free solder on manufacturing lines for cameras and Liquid Crystal Substrate Inspection Units. Studies on alternatives to hexavalent chromium are in progress and we have entered the first stage for experimenting with and evaluating replacements.

It is now the 7th year since we obtained ISO 14001 certification, a given in regional area cleanup that has been actively implemented.

We picked up trash from the 1.2 km long public road

in front of the office in June and October with 500 participants and collected 85 kg trash in environmental improvement and motivated employees toward environmental activities. We cleaned the 500 m drain with specialized brushes from the office, removing water stains, algae, and pebbles, thus keeping the area clean.





Phone: +81-266-41-4111 (direct)

Land area: 125.840m² Gross floor area: 44.000m

Amount of Recycling Waste Amount of Commissioned Tr of Waste (t) 1,000 (%) 100 97.1 83.7 980.8 61.8 577.5 500 50 347.8 0 0 119.0 215.1 500 '02 '03 '04 (FY) Transition in Recycling Waste and Recycling Rates

Data on Records of Energy, Waste and PRTR Amount Handled (FY2004) * Including data on Okaya Olympus Co., Ltd.

		Ene	ergy					Waste		PRTR Amount Handled				
Electricity (10,000kWh)	Crude oil (kl)	LPG (1,000m ²)	Gasoline (kl)	Others (kl)	CO ₂ conversion basis (t·CO ₂)	General waste (t)	Industrial waste (t)	Special waste (t)	Recycled amount (t)	Recycling rate (%)	Lead compound (t)	Xylene (t)	Toluene (t)	Others (t)
2,536	1,358	12	10	22	12,970	23.8	5.5	0.0	980.8	97.1	1.28	0.41	0.07	3.15

Site Repor

Approaches at Home and

Abroac

Site Report Approaches at Home and Abroad

On the second	nori Ol	ympus	s Co., I	_td.							Location	: 2-248-1 (JKKONOKI, Pho	one: +8	1-sni, Aon 1-172-52	-8511 (d	lirect)
Business a	area: Prod	uction of n	nedical ser	vices proc	essing app	aratuses						La	nd area: 26	,345m²	Gross floc	r area: 8,9	967m²
Aomori a pionee lead Aom tification second i 14001 ac processo employe farms, t garbage monitori as a mea: In takin local co flowing Kuroish	Olympu r in the o nori Pref , having n the pr ctivity, v or for re ces' dini: hereby a disposa ng of ele sure to cu g part in mmunit through i Neputa	is, locat: cleanest, ecture en received efecture we have cycling l ng room achieving l. We ha ctricity au t down on n enviro y, we he t the cit t to supp	ed in no latest pl terprises our first : . To red introduc kitchen , into con g our tan ave also nd streng n power nmental elp in cl y. We ort Aom	ortheast ant facil in ISO 1 in 1998 - uce was ed a raw garbage mpost for rget for implem thened n use. activiti eaning also tak ori's lon	Japan, is ities. We 4001 cer- only the te in ISC 7-garbage from the or nearby zero raw ented the nonitoring es in the up rivers e part ir g history d (FY2004)	s of	local fes	tivals, fo	or 25 yea	trs in a ro	ow, to da	ite.	Mr.Hirc Group Amount Recyclin 100 50 0 (FY) Transitio Rates	oyuki Ishi tof Recycy tof Comm ng Rate 81.9 	zawa, Gener ing Waste issloned Trea 53.0 7.4 '03 rcding Waste	al Affairs ment of Wa 94.6 70.3 4.0 '04 and Recyc	ste (%) 100 50 0
		Ene	ergy					Waste			PRT	R Amount Har	ndled				
Electricity (10,000kWh)	Crude oil (kl)	LPG (1,000m ⁻)	Gasoline (kl)	Others (kl)	CO2 conversion basis (t·CO2)	General waste (t)	Industrial waste (t)	Special waste (t)	Recycled amount (t)	Recycling rate (%)	Toluene (t)	Ethylene oxide (t)	Others (t)				
343	128	20	1	16	1,743	4.0	0.0	0.0	70.3	94.6	0.23	2.87	0.01				

Aizu Olympus Co., Ltd.

Location: 500 Aza-Muranishi, Oaza-Niidera, Monden-machi, Aizu-Wakamatsu-shi, Fukushima 965-8520 Phone: +81-242-28-2111 (direct)

Land area: 63,657m² Gross floor area: 27,975m²

Location: 2-248-1 Okkonoki, Kuroishi-shi, Aomori 036-0357

Business area: Production of medical services endoscopes

Aizu Olympus began working toward zero emissions in 1998, recycling waste after separating it into 62 types. We added processing when we updated the waste water processing facility, and neutralized thick acid and alkali generated in plate processing, in-house to reduce industrial waste. We have achieved the Zero emissions standard to reduce the volume of intermediate landfill after processing within 1% or less of total amount of emissions. After our efforts were reported in the local press, the Environmental Division of Aizu-Wakamatsu City recommended our company for the 2nd Aizu-Wakamatsu-shi Environmental Grand Prix and we received an Environmental Award in the Facility category for reducing the environmental burden.

This year, we also took part in the city's annual envi-

ronmental festival in Aizu-Wakamatsu-shi, introducing our activities for environmental conservation through panels and models. Our booths distributed organic fertilizer produced in our raw garbage processing for free and had a trivia section, and printed stickers as gifts. This was very well attended this year, just as in FY2003.



Mr.Yasuo Ikeda (L) and Mr.Kazuharu Watanab (R), General Affairs Group

Amou Amou	nt of Rent of Co	ecycling ' ommissio	Waste oned 1	reatmer	nt of Wa	aste
(t) 300	ang ra				.90.1	(%) 100
150	51.1		75.8 235.6		258.8	50
0	170.0)				0
150			75.4		28.5	
300	162.7	7				
(FY)	'02		'03		'04	
Transit Rates	ion in F	Recyclin	g Wa	ste and	Recy	cling

Data on Records of Energy, Waste and PRTR Amount Handled (FY2004)

	Energy								PRTR Amount Handled						
Electricity (10,000kWh)	Crude oil (kl)	LPG (1,000m ²)	Gasoline (kl)	Others (kl)	CO2 conversion basis (t·CO2)	General waste (t)	Industrial waste (t)	Special waste (t)	Recycled amount (t)	Recycling rate (%)	Lead compound (t)	Xylene (t)	Toluene (t)	Dichloro- methane (t)	Others (t)
1,234	729	11	5	5	6,516	21.3	4.4	2.8	258.8	90.1	2.79	3.93	6.08	0.05	10.67

Testimonial, 2nd Aizu-Wakam City Environmental Grand Pri:

34

Olympus Opto-Technology Co., Ltd., Omachi Branch

Location: 3798 Aza-Higashihara, Oaza-Tokiwa, Omachi-shi, Nagano 398-0004

Business area: Design and fabrication of metal mold, MO molding, parts assembly and production

Phone: +81-261-22-6111 (direct)

(t) 200

100 24 2

Land area: 17,810m² Gross floor area: 7,116m²

The Omachi Branch is located in an area favored by natural beauty throughout the year. The majestic view of the North Alps peaks is a familiar sight from the office. We are engaged mainly in mold forming, molded lens forming, and assembly of finders for cameras, and trade with partners is increasing annually.

The Omachi Branch, which deeply values social harmony, takes part in local summer festivals, encouraging temporary employees to experience the exotic mood of such events and deepen communication. We make the company tennis court available to local residents free of charge, and have some 20 employees take part in spring and fall local cleanup. This year, we picked up about 4 kg of empty cans and cigarette butts from the public road near the company.

Our environmental efforts focus on reducing electrici-

Data on Records of Energy, Waste and PRTR Amount Handled (FY2004)

		Energy					Waste						PRTR Amount Handled					
Electricity (10,000kWh)	LPG (1,000m ²)	Gasoline (kl)	Others (kl)	CO ₂ conversion basis (t-CO ₂)	General waste (t)	Industrial waste (t)	Special waste (t)	Recycled amount (t)	Recycling rate (%)	Lead compound (t)	Xylene (t)	Toluene (t)	Dichloro- methane (t)	Others (t)				
883	11	2	13	3,258	1.5	0.0	0.0	173.6	99.2	0.10	0.16	1.33	0.07	0.04				

ronment.

Olympus Opto-Technology Co., Ltd., Sakaki Branch

ty consumption in mold forming and processing plas-

tic waste. We are therefore replacing conventional

forming equipment with energy-saving equipment and

reusing waste in-house or recycling it thermally. We

are working together to reduce burdens on the envi-

Business area: Production of camera lenses and printers

At the Sakaki Branch, the ratio of conventional polished lens to glass-forming lenses is increasing, accounting for 55% of the electricity consumed. We are now shifting our polishing process from polished lenses for compact cameras to large-caliper, high-precision polished lenses for the OLYMPUS E-1 digital SLR

All Employees teamed up in zero emissions efforts in September 2002, creating a management system, sharing environmental information via bulletin boards, and setting up new waste separation. Sludge generated in lens polishing is particularly difficult to recycle, but in the future, we will be working to recycle all waste and attain our target of zero waste.

In the local community, we cut grass along the Mido River during environment week each year. The area

Data on Records of Energy, Waste and PRTR Amount Handled (FY2004)

is nearly 500 m long and crosses a drain - which makes for a lot of afternoon sweat! In June, we collected nearly 10 light vans full of cut grass. Residents appreciated our aid in the village's joint work.





Tsutomu Honma, Len Processing Team



Transition in Recycling Waste and Recycling Rates

	Energy					Waste				PRTR Amount Handled				
Electricity (10,000kWh)	Crude oil (kl)	LPG (1,000m ²)	Gasoline (kl)	Others (kl)	CO ₂ conversion basis (t·CO ₂)	General waste (t)	Industrial waste (t)	Special waste (t)	Recycled amount (t)	Recycling rate (%)	Xylene (t)	Toluene (t)	Dichloro- methane (t)	Others (t)
829	69	2	3	16	3,206	15.9	5.5	7.7	100.8	77.5	0.05	0.09	0.15	0.06



Amount of Recycling Waste Amount of Commissioned Treatment of Waste

(%) 100

99 2

173.6 50 Site Repor

Site Report Approaches at Home and Abroad

Phone: +81-55-973-1311 (direct) Business area: Development, manufacture and service of blood analyzing unit Land area: 7,066m² Gross floor area: 5,876m² Mishima Olympus has focused long-term on two incontributing to such activities and enhancing the corhouse environmental activities. One is a monthly enporate image. vironmental poster - now in its sixth year - put out by the environmental secretariat covering such wideranging issues as electricity and waste reduction, recycling, and requests for environmental audits. Kaname Hasegawa, Purchase Group The other is morning cleanup inside and outside the plant. We have been cleaning company gardens daily Amount of Recycling Waste since Mishima Olympus was founded. We also pick (t) 100 (%) 100 up garbage and waste that accumulate on nearby 74.2 roads. From Monday through Friday, divisions take 55.5 49 F 50 turns cleaning while being careful to avoid traffic ac-54.5 44.0 46.1 cidents during the 8 o'clock commuting rush. Local 0 residents appreciate our effort, and employees have 18.9 37.0 become used to being asked by total strangers about 44.9 50 '02 '03 '04 the company's morning cleanups. We are happy to be Transition in Recycling Waste and Recycling Data on Records of Energy, Waste and PRTR Amount Handled (FY2004) * Substances applicable to PRTR not treated Energy Waste ecycling rate (%) Specia waste (t) Recycleo amount (t) enera waste (t) Electricity (10.000kWh) Gasolir (kl) waste (t) basis (t·CO₂) 102 3 369 6.6 12.3 0.0 54.5 74.2

Shirawaka Olympus Co., Ltd.

Mishima Olympus Co., Ltd.

Location: 3-1 Aza-Okamiyama, Oaza-Odakura, Nishigo-mura, Nishi-Shirakawa-gun, Fukushima 961-8061 Phone: +81-248-27-2211 (direct)

Location: 128 Shimotogari, Nagaizumi-cho, Sunto-gun, Shizuoka 411-0943

Business area: Production of medical services mechanical appliances

Shirakawa Olympus' policy is to preserve the scenic local environment for future generations and operating in harmony with the beautiful Abukuma Mountain site our enterprise is privileged to occupy. In FY2004, we focused on reducing CO2 emissions, achieving Zero emissions certification, and reducing well and piped water consumption. To reduce CO2, we measure each workplace and facility electricity consumption and monitor plant-wide electricity consumption. Based on such information, we will work to implement a detailed reduction program for each workplace and equipment. In working with the local community, we marked the company's 25th anniversary by starting cleanup of Nihigo-mura, the source of the Abukuma River, and a walking campaign to pick up trash along mountain trails while improving resident and employ-

ee health. In this campaign, 218 employees and family members collected some 80 kg of trash. We also held annual summer charity fundraisers at festivals, donating an MIC-D digital microscope to Nishigo-mura. We make the company tennis court available to the tennis club of Shirakawa High School.



Nishigo-mura along Abukuma R Cleanup and Walking Campaigr



Land area: 76.550m² Gross floor area: 11.500m²



Transition in Recycling Waste and Recycling

367

100

	Energy						Waste					PRTR Amount Handled	
Electricity (10,000kWh)	Crude oil (kl)	LPG (1,000m ²)	Gasoline (kl)	Others (kl)	CO ₂ conversion basis (t·CO ₂)	General waste (t)	Industrial waste (t)	Special waste (t)	Recycled amount (t)	Recycling rate (%)	Lead compound (t)	Ethylene oxide (t)	
324	41	4	5	1	1,308	6.2	2.5	0.04	161.6	94.9	0.89	0.34	

Olympus Logitex Co., Ltd.

Location: 1-3 Tanabe-shinden, Kawasaki-ku, Kawasaki-shi, Kanagawa 210-0856 Phone: +81-44-344-5111 (direct)

Business area: Product warehousing and distribution

Olympus Logitex celebrated its 30th anniversary 3 years ago by moving to Kawasaki Ward in Kawasaki, between Tokyo and Yokohama. Social issues such as pollution caused by the city's dense industrialization have been replaced by redevelopment of coastal areas and upgrading bases for international research and development and disaster prevention. Since we are located along an industrial artery, we regularly clean up areas around the company to help change the city's reputation as one of Japan's most polluted population centers. During lunch each week, a dozen or so employees take turns picking up empty cans and cigarette butts from along the road. To obtain ISO 14001 certification, we pursue employee awareness of environmental policy at morning assemblies and classify garbage in detail. We also promote "closed" recycling by separating and collecting OA paper from the company for reprocessing by a local paper manufacturer. We then use this reprocessed paper as cushioning material for shipping products.









Land area: 19,058m² Gross floor area: 30,297m²

Data on Records of Energy, Waste and PRTR Amount Handled (FY2004) * Substances applicable to PRTR not treated

	Energy		Waste						
Electricity (10,000kWh)	Gasoline (kl)	CO₂ conversion basis (t·CO₂)	General waste (t)	Industrial waste (t)	Special waste (t)	Recycled amount (t)	Recycling rate (%)		
122	2	440	8.8	0.0	0.0	464.7	98.1		

Olympus (Shenzhen) Industrial Ltd.

Business area: Assembly of cameras and processing of lens and mold components

Shenzhen Plant is implementing and strengthening its ISO 14000 Environmental Management System. In September 2003, we were recognized as a "Clean Production Firm" due to extensive improvements in environment and work efficiency. This is awarded only to firms satisfying extremely strict standards - only 22 firms in all of Guangdon, including 2 from Shenzhen, and the first Japanese affiliate to do so. In November, we received an "honorable title" from Shenzhen City as a leading firm, fully meeting Shenzhen-City Industrial Pollution Standards.

In social activities, some 200 employees took part in the 5th China International Plant and Flower Exhibition, planting trees and enhancing employees' environmental awareness and position as part of the local community.

Data on Records of Energy and Waste (FY2004)

		Energy			Waste					
Electricity (10,000kWh)	LPG (1,000m ²)	Gasoline (kl)	Others (kl)	CO ₂ conversion basis (t·CO ₂)	General waste (t)	Industrial waste (t)	Special waste (t)	Recycled amount (t)	Recycling rate (%)	
2,309	67	2	4,453	20,424	7.5	94.0	8.9	711.3	86.6	

Tree Planting



'Clean Production Firm" Certification

Location: Nantou, 5th Industrial District, Nanshan, Shinzhen, Guang Dong, P.R.C.



Phone: +86-755-6980118

Promotion Department Ms.Luo Ying (L) and Mr.Di Bao Feng

(t-CO ₂) 25,000						
20,000				2	20,42	4
15,000		t	16,04.	2		
10,000	12,60	3				
5,000						
0						
(FY)	'02		'03		'04	
Transition in	n CO:	Emissi	ons			
The coefficie	ent of	CO2 em	nissio	n is cald	ulate	d

using a coefficient for 2000 cited in the Enforcement Order for Promoting Globa Warming Countermeasures in the same is done in Japan. way as

Site Report Approaches at Home and Abroad

Olympus Winter & Ibe GmbH (OWI)

Business area: Development, production, sales, and service of rigid and flexible endoscopes

Phone: +49-40-669 66-0 Land area: 13,300m² Gross floor area: 11,980m²

Location: Kuehnstraße 61, D-22045 Hamburg, Germany

OWI obtained ISO14001 in 2001 and has been enhancing its environmental activities. OWI is planning to change the packaging system for mechanical instruments (not for telescopes).

From the data "Dimensions and Weight" you can note that new packaging is considerably lighter and smaller. The downside is that the number of PE-pouches has increased. PE is known as recyclable plastics.

Targets of New Packaging Systems:

- 1. Protection of the product during transportation and stor-
- Protection of the product dama transportation and storage
 Protection of the product against pollution
 Packaging smaller and lighter, improve Environment-friendliness
 Reduce storage and transportation capacity, improve
- Environmental consciousne 5. Accepting of the new packaging-system by the cus-
- 6. Introduction of the new packaging-system Dec. 2003

Data on Re	Data on Records of Energy and Waste (FY2004)								
	Energy		Waste						
Electricity (10,000kWh)	City gas (10,000kWh)	CO2 conversion basis (t·CO2)	General waste (t)	Industrial waste (t)	Special waste (t)	Recycled amount (t)	Recycling rate (%)		
233	166	1,667	645.0	0.0	65.4	605.8	46.0		

Olympus Diagnostica GmbH [Irish Branch] (ODI)

Business area: Development and manufacturing of reagents for clinical blood analyzers

ODI's main environmental objective was to obtain certification to International Environmental Standard ISO 14001, and this objective was successfully completed in January 2004. Firstly, a number of Environmental Improvement Programs were put in place. Some of these issues are as follows: the Upgrade of ODI's Effluent Treatment Plant, Fire-Water Retention Study, Hazardous & Non-Hazardous Waste Management, Chemical Risk Assessment and Control, and Contractor Control.

Further segregation of waste streams at ODI and increased recycling levels during the last year have resulted in a 45% reduction of waste going for disposal to landfill. The company has invested in bunding and separate storage units for chemicals, thus ensuring, environmentally conscious chemical use and storage.

Education of and communication with employees in en-

vironmental issues is of paramount importance at ODI. For example, an Environmental Notice Board which was put in place, is used as a very visible means of communicating environmental performance and initiatives. Numerous training modules took place - the first one being an Environmental Awareness Induction Module which each individual received on commencement of employment. Pocket sized Environmental Policy Cards indicating the main points of ODI's Environmental Policy are issued to all personnel. Other education initiatives are environmental procedures training, waste segregation training, spillage response training, hazardous substances training and emergency response team training.

ODI strives to continuously improve its environmental standards and to manufacture in unison with our environment.



Phone: +353-656-83-11-00

Human Resource N Mr. Liam McGregor

Land area: 1.300.000m² Gross floor area: 5.700m²

Location: O' Callaghan's Mills, Lismeehan, Co, Clare, Republic of Ireland



Burial Site Adjacent to Building Works A meeting was held prior to the commencement of the building extension with all local house owners and land owners so that they could voice any concerns. ODI ensured that all the existing trees around the building area were protected and are still being protected as was the historic Stone Age burial site adjacent to the building, without negatively affecting the surrounding environment.

Data on Records of Energy and Waste (FY2004)

	Energy		Waste						
Electricity (10,000kWh)	Crude oil (kl)	CO ₂ conversion basis (t·CO ₂)	General waste (t)	Special waste (t)	Recycled amount (t)	Recycling rate (%)			
205	59	1,754	54.3	296.9	58.8	14.3			



Expected Results Based upon Sales Figures of OWI Products *The table "Statistical Data" shows estimated values basing upon the basis of 2002. The percentage-values (%-figures) mentioned in the table, are based partially upon estimation.

Old System

22.120

5.215

Packaging (Cardboard)

Packaging (Plastic bag)

Capacity of Storage / Transportation

Packaging (Volume)

All Products (kg)

New System

5.690

18.690 -16%

{9%

16%

-16%



New System of Trocar Cardboard dimension: 210 ~90 ~43 mm, Weight: 53g Weight of plastic bag: 15g



Site Repor

KeyMed (Medical & Industrial Equipment) Limited

Business area: Sales, repair, development and production of endscopes and accessories

KeyMed's social contribution increased last year. For example, the Sacred Heart Catholic Primary School approached KeyMed for assistance in creating a wildlife garden in the corner of the playing field. KeyMed agreed to fund the garden and planting was completed in March 2003. During the summer of 2003 a child of the school tragically died of cancer, and the school dedicated the new garden to him, calling it "Harry's garden."

KeyMed has also continued to reduce its environmental impact and has made significant improvements with waste separation. Advances have been made in the separation and recovery of electronic waste, cathode ray tubes and wood. Until recently all these categories were sent to landfill because the very small quantities generated by KeyMed made it difficult to process these waste streams. Nevertheless persistent searching meant that contractors were eventually found and all electronic waste, cathode ray tubes and wood are now recovered. Electronic waste is sent for the recovery of precious metals and other materials. Cathode ray tubes are sent to Belgium where a state of the art plant is used to disassemble the tubes and recover the various components, and wood is sent to be chipped and made into kitchen furniture. As well as initiating these new recovery streams there have also been improvements in the quality of separation of other waste streams such as cardboard.

find a contractor who was prepared to receive and

Location: KeyMed House, Stock Road, Southend-on-Sea, Essex SS2 5QH, United Kingdom

latory & Environmental Affairs ger, Mr. Andrew J. Vaughan

Land area: 30,000m² Gross floor area: 15,000m²

Phone: +44-01702-616333





Data on Records of Energy and Waste (FY2004)

	Energy		Waste						
Electricity (10,000kWh)	City gas (10,000kWh)	CO₂ conversion basis (t·CO₂)	General waste (t)	Industrial waste (t)	Special waste (t)	Recycled amount (t)	Recycling rate (%)		
478	559	3,118	429.4	7.8	0.0	659.6	60.1		

Olympus America Inc. (OAI)

Location: [Corporate Headquarters] 2 Corporate Center Drive, Melville, NY 11747-3157, U.S.A. Phone: +1-631-844-5925 [San Jose National Service Center] 2400 Ringwood Ave. San Jose, CA 95131-1700, U.S.A. Phone: +1-408-935-5018

[Corporate Headquarters] Land area: 1,700m² Gross floor area: 24,247m² [San Jose National Service Center I and area: 24,640m² Gross floor area: 7,500m² Business area: [Corporate Headquarters] Sales and marketing of all products except industrial microscopes [San Jose National Service Center] Repair of medical products, administrative service, and distribution

During 2003, in Melville HQs, OAI enhanced its environmental activities. OAI presented its environmental activities for the first time at this year's global Olympus Eco-Forum. OAI strengthened communication with Olympus Tokyo and other global Olympus Business Centers by sharing information identified through its study of various U.S. federal, state, and local environmental laws. Use of Styrofoam packing material for product shipment was reduced by 45% in the Hauppauge Distribution Center. OAI reduced paper use by expanding its program to process Consumer Product orders electronically through OAI's Internet web site. During the program's first full year in 136P, over 66,000 orders were processed electronically from more than 900 CPG dealers and thousands of direct consumers.

In San Jose National Service Center, OAI continued its established recycling activities, including recycling of polythene foam shipping materials, discarded electronic components, Cathode Ray Tubes (CRT's) and cardboard packaging materials. Energy saving activities included, at selected locations, the use of long-life fluorescent lamps as replacements for burnt out older lamps, and the select use of motion sensors to turn off lights when not needed. Hazardous wastes were collected at specific locations throughout the facility for proper disposal in accordance with applicable laws.



othy D Sullivar





cycling of Polyethylene Foam

Data on Records of Energy and Waste (FY2004) * San Jose National Service Center only.

	Energy		Waste						
Electricity (10,000kWł	City gas (Therm)	CO ₂ conversion basis (t·CO ₂)	General waste (t)	Industrial waste (t)	Special waste (t)	Recycled amount (t)	Recycling rate (%)		
169	20,482	505	424.4	4.9	0.1	470.8	52.3		

Recognition from Outside

Queen's Award for Enterprise in Sustainable Development Conferred on KeyMed (Medical & Industrial Equipment) Limited

On 21 April 2004, Her Majesty The Queen approved the Prime Minister's recommendation that a Queen's Award for Enterprise be conferred on KeyMed in the category of Sustainable Development. The Award was given in recognition of the business efficiency gains arising from the company's success in combining commercial excellence with progressive social and employment policies. The Queen's Award is widely recognized as the most prestigious business award in the United Kingdom.

In a statement released to the press, the Queen's Award Office stated:

"KeyMed clearly demonstrates that integrating sustainable development into business activities can pay dividends through staff development and motivation, engagement with local communities, and mitigation of the impacts of its activities on the environment It has invested considerable effort in staff health and safety, promoting access to work for people with disabilities, and offering staff the opportunity to develop within the organization". The company was also praised for offering local schools access to its facilities, contributing significantly to a number of charities, actively taking part in local community development projects and its Board-level commitment to reduce CO₂ emissions and adopt a wider range of environmentally-responsible approaches to its operations

Michael Woodford (MBE=1)), Group Managing Director, commented: "We are extremely proud of this honor as it is the highest accolade Her Majesty can bestow on industry and places KeyMed amongst the most successful of UK businesses. Quite apart from the publicity that this Award has generated, it is rewarding that the culture and ethos of the organization, which is at the heart of our success, has been recognized in this way."

➡ 1) MBE: Members of the Order of British Empire

Olympus (Shenzhen) Industrial Ltd. Receiving Clean Production Firm Award

In September 2003, Olympus Shenzhen was the first Japanese affiliate to receive a Clean Production Firm Award from the Guangdong government. The award goes only to firms that meet very strict standards, including reports on contents of clean production, organization, and education, the status of activities set forth by regulations, company-wide clean production, and whether indicators for emissions, drainage, and waste satisfy standards set forth by laws and regulations. Olympus Shenzhen has focused on energy saving, recycling of household wastewater and resin material, and reducing waste. Among our efforts, waste recycling introducing leading-edge technology was especially highly evaluated, leading to this award.

Olympus Logitex Co., Ltd. Receiving 20th Logistics Grand Prize Recognition

Olympus Logitex received recognition at the 2003 (20th) Logistics Grand Prize, the most authoritative award in the distribution industry. Efforts that were highly evaluated included elimination of warehouse-to-warehouse transport, reduction of CO₂ emissions by modal-shift introduction, and innovative efforts in optimizing distribution bases through integration and thereby shortening delivery lead time for customers. We also reduced inventory and distribution costs. In the words of Olympus Logitex President Masatoshi Tabata, "When viewing Olympus as a whole, there is still room for improvement. In the future, we intend to undertake procurement in physical distribution to further contribute to the business of the Group as a whole.'



an Production Firm Award

Mas ata Olv nonis Loa -x (R) holding award plaques

Editor's Note



This environmental report reviews the company's environmental activities over the last year, and includes site reports on "Approaches at Home and Abroad." Site reports should prove of special interest to residents in the local community. This report also contains a new section on the "Personnel System and Human Resource Development," and devotes considerable space to environmentally conscious products. It presents a new challenge for us as a manufacturer to create new value. By obtaining ISO



by managers has become clear and easy to understand. We hope you will find this report on realizing a sustainable society both entertaining and informative, and look forward to hearing your candid comments, impressions, and advice

> Katsuhiko Tsunefuii General Manager, Environmental Development Department

Photograph on the Cover: Shot by Mr. Mitsuaki Iwago, Animal Photographer Born in Tokyo in 1950. He has visited most of the globe alone taking pictures of nature and animals and published a number of true-to-life photographs. His works are highly regarded internationally.

Cover: King George Island, South Pole Located 120 km off coast of Antarctica in the Southern Ocean, King George Island is the largest of the South Shetland Islands. It is home to research stations belonging to Argentina, Brazil, Chile, China, South Korea, Poland, Russian and Uruguay. The South Pole region, one of the most sensitive on earth, reflects the influence of climatic change, including swiftly shrinking sea and shelf ice, dwindling populations of native species such as penguins, and the emergence of foca never here. flora never before seen there





The Queen's Awards Logo

Olympus Environmental Activities and Awards

History

Year	Month	Major Activities
1975	March	Pollution Prevention Committee established
1976	June	Each facility celebrated Environment Week
		Production of calendars, etc., in support of the WWF (current World Wild Life Fund) begun
1970 Latter h	nalf	Company-wide regulations and standards related to pollution prevention, waste treatment, chemicals management, etc., arranged and upgraded
1984	April	Pollution prevention diagnosis program began (continued through 1996)
1980 Latter h	nalf	• Each office in the Olympus Group is to prepare an annual environmental white paper summarizing environmental conservation and preservation efforts and to submit it to officials in charge of the environment.
1992	January	Environmental Affairs Office responsible for company-wide coordination of environmental activities established
	August	Olympus Environmental Principles created
1993	July	Completed discontinuation of use of specified chlorofluorocarbons and 1,1,1-trichloroethane
1994	December	Completed discontinuation of use of polystyrene foam for compact camera packaging
1995	July	Landscaping and preservation of the Tenryu River promoted (Chubu Regional Bureau Ministry of Construction).
1996	March	Company-wide Basic Environmental Plan 1996 instituted
	June	Company-wide Environmental Management manual created
1997	February	Ina Plant became first Olympus facility to obtain ISO 14001 certification.
		Application of environmental assessment to products started.
1998	June	PRTR data for fiscal 1997 gathered and announced
	October	• The Tatsuno Plant received the Japan Greenery Research and Development Center award as a 1998 Good Greening Plant.
1999	February	• Tatsuno and Ina Plant received awards for achieving 1998 Energy Management (from Chubu Bureau of International Trade and Industry).
	July	Company-wide Basic Environmental Plan 1999 instituted
	September	Shenzhen Plant (Shenzhen, China) obtained ISO 14001 certification
2000	February	Hinode Plant received award for superior rationalization of energy use from the Kanto Electric Association
	March	• Technology Research Institutes (Hachioji) obtained ISO 14001 certification, completing the certification of all 12 Olympus development and manufacturing facilities in Japan
	October	Introduced Green Procurement Guidelines, finished audit of parts suppliers
		Drafted guidelines for the purchase of products for commercial use
2001	February	Hinode Plant again received award for superior rationalization of energy use from the Kanto Electric Association
	March	Introduced technology to eliminate trichloroethylene in the washing process
		Garbage processing device introduced at Tatsuno Plant
	May	Olympus Winter & Ibe GmbH obtained ISO 14001 certification
	June	Garbage fermentation processing device introduced at Technology Research Institutes (Hachioji)
	August	Olympus Logitex Co., Ltd., Tokyo Center started operation of distribution bases
2002	March	Medical & Industrial Equipment (KeyMed) Limited obtained ISO 14001 certification
		Recycling center of Technology Research Institutes (Hachioji) started
		Company-wide Basic Environmental Plan 2002 designated Ecology Vision 21 established
	April	Environmental Development Department established
		Environment Committee organization arranged (Olympus Group Environmental Committee, Facility Environmental Affairs Administration Meeting, etc.)
		• Environment site assessment started around soil and ground water examination at domestic production sites
	September	Internal Eco-forum held
2003	February	Ina Plant awarded Prize of Director-General for Agency of Natural Resources and Energy
	September	Five major development and production bases in Japan achieved Zero emissions.
		Olympus Shenzhen received the Clean Production Firm Award.
	October	Olympus Logitex received the 2003 (20th) Logistics Grand Prize from Japan Institute of Logistics Systems.
	November	Olympus Logitex obtained ISO 14001 certification.
	December	Products were shown at Ecoproducts 2003 Exhibition.
		 In-house qualification of environmentally conscious products was implemented, and the SZX7/SZ61, a stereo microscope and the E-1, a digital SLR system were designated as Olympus Eco-products.
		The E-1 received the first ECOLEAF environmental label for a digital single-lens reflex camera.
2004	January	ISO 14001 certification was obtained for the Olympus Corporation Environmental Management System.
		Olympus Diagnostica GmbH (Irish Branch) obtained ISO 14001 certification.
	March	All major offices in Japan achieved Zero emissions.
		KS Olympus, a sales affiliate, obtained ISO 14001 certification.





Olympus Corporation

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