

Olympus and the Environment



Business Activities and Environmental Impacts

When the Company develops the business activities such as R&D, manufacturing, distribution, sale and service for imaging and information, medical and health-care, and industrial equipment, we consider the various impacts such activities will have on the environment. To control the impact, the Company gives consideration to the environment by taking into account the features of each business area.

INPUT

Energy → page 24

● Electric power	96,120MWh
● Heavy fuel oil	3,124kl
● Kerosene	331kl
● Diesel fuel	73kl
● Gasoline	69kl
● City gas	700,000m ³
● LPG	50,000m ³
Total	1,159 TJ
	TJ (tera-joule) = 10¹²J

Raw Materials

- Metals
Steel, aluminium, brass
- Optical glass
- Plastics
ABS, PC, polyethylene, polypropylene
- Chemicals
Acids, alkalines, solvents, paints

R&D



Design



Facilities under the Corporate R&D Center

- Olympus Optical Co., Ltd.
Technology Research Institute
- Tokyo Kinzoku Co., Ltd., Kyowa Plant

Production

Imaging and information

- Olympus Optical Co., Ltd., Tatsuno Plant
- Olympus Opto-Electronics Co., Ltd., Tokyo Plant
- Ohmachi Olympus Co., Ltd.
- Sakaki Olympus Co., Ltd.



Silver-halide camera

Medical and health-care

- Olympus Optical Co., Ltd., Hinode Plant
- Olympus Optical Co., Ltd., Ina Plant
- Olympus Opto-Electronics Co., Ltd., Aomori Plant
- Olympus Opto-Electronics Co., Ltd., Aizu Plant
- Mishima Olympus Co., Ltd.
- Shirakawa Olympus Co., Ltd.



Endoscopic videoscope system

Industrial

- Olympus Optical Co., Ltd., Ina Plant
- Olympus Optical Co., Ltd., Tatsuno Plant
- Olympus Opto-Electronics Co., Ltd., Aizu Plant
- Shirakawa Olympus Co., Ltd.
- Okaya Olympus Co., Ltd.



Semiconductor inspection equipment

OUTPUT

CO₂ Emissions → page 24

● Electric power	34,315 tons- CO ₂
● Heavy fuel oil	8,653 tons- CO ₂
● City gas	1,511 tons- CO ₂
● Kerosene	831 tons- CO ₂
● Other	655 tons- CO ₂
Total	45,966 tons- CO₂

Emission of PRTR-Listed Substances → page 28

● Trichloroethylene	0.3 tons
● Toluene	4.9 tons
● Xylene	5.4 tons
● Dichloromethane	0.4 tons
● Other	1.2 tons
Total	12.2 tons

Boiler Air Pollutants → page 30

● SO _x	6 tons
● NO _x	38.4 tons

Materials Discharged into Water → page 30

● BOD	4.2 tons
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Other Utilities → page 25

- Piped water 130,000m³
- Ground water 1,380,000 m³

Office supplies

- Copy paper 125 tons

Products → page 18

- Silver-halide cameras 1,960 tons
- Digital cameras 820 tons
- Microcassette/IC recorders 170 tons
- Endoscopes 650 tons
- Microscopes 640 tons
- Analysers 660 tons
- Measuring devices 380 tons
- Printers 290 tons
- Magneto-optical disk drives 240 tons
- Other 150 tons

Weight of all products in Olympus Group 5,960 tons

Packaging Materials → page 22

- Cardboard 1,300 tons
- Paper 472 tons
- Plastics 158 tons

Packaging materials for all Olympus products 1,930 tons



Digital camera



IC recorder



Biological microscope



Blood analyser



Industrial endoscope



Magneto-optical (MO) disk drive

Recycled Wastes → page 26

- Waste paper 745 tons
- Waste metal and glass 609 tons
- Waste plastics 302 tons
- Waste oil 150 tons
- Raw waste and sludge 98 tons
- Waste acids and alkalines 16 tons

Total 1,920 tons

Commissioned Waste Processing → page 26

- Sludge 468 tons
- Waste plastics 332 tons
- Waste alkalines 190 tons
- Waste acids 179 tons
- Waste paper 140 tons
- Waste oil 139 tons
- Waste metal and glass 79 tons
- Other 3 tons

Total 1,530 tons

Distribution



Sales



Service



Environmental Management

Product-Related Measures

Manufacturing-Related Measures

Communication with Society

Environmental Data at Facilities



In this section the Company will introduce the Olympus Group's major environmental activities in FY 2002.

Preparation of Guidelines for the Collection of Environmental Information from Olympus Facilities → page 34

Standard documents used throughout the company to obtain an understanding of annual environmental activity in the company's facilities in Japan have been revised. Items of data and their definitions were standardised for analysis and evaluation by each facility and reporting to head office.

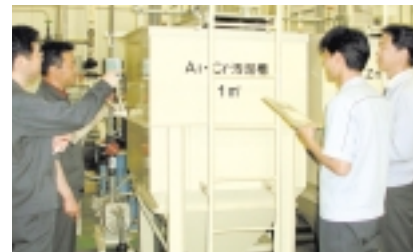
The revisions also conform to the international standard ISO14031, an environmental performance indicator.



Front Cover of Standard Documents
(left: Japanese version, right: English version)

Implementation of Environmental Management Diagnosis Programme → page 11

The Environmental Development Department of the head office and specialists such as pollution control managers have systematically visited facilities in order to gain an understanding of the present status of environmental activity and measures which ought to be taken. In FY2002, diagnosis was conducted at 13 facilities in Japan on the subject of soil and groundwater pollution.



Environmental Management Diagnosis in Progress

Energy-Saving Measures → page 24

The total quantity of energy total consumed in development and manufacturing facilities in Japan was reduced by 3.7% (absolute volume of CO₂ conversion) compared with the previous year and there was a reduction of 8.2% per unit of net sales. A reduction of electrical power and heavy fuel oil each contributed over 1%.

Compared with FY1997, the year when the medium-term goals were established, in FY2002 a 4.8% reduction was achieved on an absolute volume basis and a 41% reduction per unit of net sales which substantially exceeds the target reduction of 10% per unit of net sales.

Waste Reduction and Recycling → page 26

The total volume of waste discharged from development and manufacturing facilities in Japan reached 3,450 tons, a 10% reduction (in terms of absolute volume) compared with the previous year. From this, 1,920 tons of the waste was recycled (i.e. reused as a resource), and the ratio of recycled waste reached 56%. Although the amount has not quite reached the 60% recycling target of the medium-term plan, there is a notable improvement compared with the results of the previous year.

Green Procurement → page 18

Green procurement of parts and components from not only the Japanese market but also from overseas is encouraged, and the Company prepared an English version of the Olympus "GREEN PROCUREMENT GUIDELINES" in May 2001. The Chinese version was prepared in March 2002. The publications provided the business partners with a clearer explanation of the green procurement policy.



Olympus "GREEN PROCUREMENT GUIDELINES"
(left: English version, right: Chinese version)

Reduction of Trichloroethylene → page 29

The use of trichloroethylene, a chlorinated solvent, was reduced by over 90% by reducing usage and changing to substitutes. In FY2002, 1.4 tons of trichloroethylene was used compared with 13 tons in FY2001.

ISO14001 Certification for Overseas Facilities → page 10

ISO14001 environmental management system certification was obtained by Olympus Winter & Ibe GmbH (OWI) in May 2001 and in KeyMed (Medical & Industrial Equipment) Limited (KM) in March 2002, both overseas production centers.



KM Certificate and Parties Concerned



Environment and Quality Control Manuals of OWI

Recycling Center of the Technology Research Institute in Hachioji Starts Operation → page 27

A waste recycling center has been constructed within the Technology Research Institute located in Hachioji City, Tokyo, and started operation from March 2002. The recycling center will mean better separation and recycling of food waste.



Composting Unit for Food Waste (Technology Research Institute)

Main Distribution Center Starts Operation → page 23

The Tokyo Center in Kawasaki City, which combines the distribution centers of Olympus Logitex, the company responsible for distribution in the Olympus Group, went into full-scale operation from August 2001. This means a substantially faster distribution time and a shorter distance for transfer of products and parts.



Olympus Logitex Co., Ltd., Tokyo Center

Planning for the 02 Environment Basic Plan → page 9

“02 Environment Basic Plan - Ecology Vision 21”, a medium-term plan, was established, coordinating the policies and goals to be executed by each division in the next five years from FY2003. High-level environmental activity will be developed on the basis of the plan.

Improvements to Environmental Report 2002

- This year's report provides detailed information with a more comprehensive description of information in guidelines and with due consideration to the “Environmental Reporting Guidelines” published in 2000 by the Japanese Ministry of the Environment. This means that it is 16 pages longer than last year. We, editorial staff, made strenuous efforts to give further information about items covered last year. Numerical data on environmental performance were also provided by reference to the Environmental Reporting Guidelines and the “Environmental Performance Indicators for Business People (2000 version)” published by the Ministry of the Environment.

- The Company internally standardised methods of data provision from each facility and have disclosed each facility's environmental information in this year's environmental report. The publication was designed to incorporate more graphs and drawings. In addition, the scope and conditions for understanding and presentation of data have been clarified, and negative information such as accidents has also been included.
- We envisaged a wide readership when the questionnaires were prepared and the Company received feedback about the results. We hope the environmental report will be of value for two-way communication between interested parties.