

# KODAK LIMITED

# ENVIRONMENTAL REPORT 2000



Kodak Limited Focusing on the Environment

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# 1. Foreword by Chairman and Managing Director of Kodak Limited

Kodak Limited is committed to the worldwide Eastman Kodak Company Corporate Health, Safety and Environment (HSE) Policy: -

"It is the policy of Eastman Kodak Company to carry out its business activities in a manner consistent with sound health, safety and environmental management practices, Kodak's Guiding Principles and Performance Standards, and to comply with applicable health, safety and environmental laws and regulations."

Kodak Limited's significant achievement in 2000 was to gain the Queen's Award for Enterprise – Sustainable Development awarded in April 2001 – the first year this prestigious award was granted.

The Award recognises social progress, environmental protection and prudent use of material resources, maintaining high levels of economic growth and management commitment and leadership.

The information submitted in the application for the award was subject to intensive third party audit before the honour was granted and it lasts for 5 years.

In particular, the award recognised the significant environmental improvements at our manufacturing sites together with involvement in local community programmes and our single use camera recycling programme and our Research & Development Division activity in DfE (Design for the Environment) for our products.

Environmental management continues to be an important part of corporate policy. The corporate system was registered to the international environmental management standard ISO 14001 in 1999 and continues to maintain it. All major Eastman Kodak Company manufacturing sites around the world continued to maintain their ISO 14001 registrations. Kodak Limited registered its 3 manufacturing sites in 1997/1998 and independent audits on a twice yearly basis maintain the registration.

We believe that commitment and leadership by senior management is fundamental to achieving our environmental aims and objectives and I am pleased to lead the Company in progressing towards our vision of environmental responsibility which is: -

"To be seen as a leader in environmental responsibility by continually minimising the environmental impact of our products, services and operations."

To meet the Corporate Health, Safety and Environment Policy and to achieve its vision, Kodak Limited has implemented the following guiding principles in different areas of its commercial activities: -

• To extend knowledge by conducting or supporting research on the health, safety and environmental effects of our products, processes, and waste materials.

- To operate our plants and facilities in a manner that protects the environment and the health and safety of our employees and the public, and is efficient in the use of natural resources and energy.
- To make health, safety and environmental considerations a priority in our planning for all existing and new products and processes.
- To develop, produce and market products and materials that can be manufactured, transported, used and disposed of safely and in a way that poses no undue environmental impact, and to provide services in a safe and environmentally sensitive manner.
- To counsel customers on the safe use, transportation, storage, and disposal of our products, and for those services we provide, to provide them safely.
- To participate with governments and others in creating responsible laws, regulations and standards to safeguard the community, workplace and environment and in applying environmentally sound management practices and technologies.
- To measure our environmental performance on a regular basis and provide to officials, employees, customers, shareholders, and the public, appropriate and timely information on health, safety or environmental hazards, initiatives and recommended protective and preventative measures.
- To recognise and respond to community concerns that may arise about our operations and to work with others to resolve problems created by handling and disposal of hazardous substances.
- To encourage employees to apply the same principles off-the-job for health, safety and the environment that are applied at work.

We are presenting our ninth annual environmental report which aims to inform our employees, customers, suppliers and local communities about the activities that we are undertaking throughout Kodak Limited and the progress being made.

This report publicises progress made on our environmental objectives. We hope you find it both useful and interesting.

Alan O'Neill Chairman & Managing Director

# 2. About Kodak Limited

Kodak Limited is a wholly owned subsidiary of the Eastman Kodak Company. The company provides products and services to the Infoimaging market. Its technologies provide digital and traditional silver halide imaging solutions to governments, businesses, and individual consumers across the world. Kodak Limited is part of the European Region operations. It has responsibilities to market products and services in the UK. It has three manufacturing sites that make photographic goods for worldwide markets and a significant R&D operation.

# 3. Business Unit Environmental Activities and Achievements

The Business Units have made a large contribution to the implementation of the Company HS&E Policy and environmental vision.

Kodak is committed to deliver products and services that meet our customers environmental health and safety needs. Several internal management processes drive towards that commitment. In addition, Kodak's philosophy is to supply products to our customers using the minimum amount of packaging required to ensure quality. We strive to make the packaging reusable or refillable and to make it out of recycled and recyclable materials.

Kodak is proud to manufacture one of the most recycled and most recyclable products in the world: the Kodak line of One-Time Use Cameras (OTUC). Kodak recycling facts:

- 1. There are active recycling and OTUC collection programmes in over 20 countries. Since starting the programme in 1990, Kodak has recycled over 425 million OTUCs. This has saved over 35,000 tonnes of materials becoming wastes around the world.
- 2. Industry-level exchange partnerships have been established by Kodak with Fuji, Konica and other OTUC manufacturers. Through these partnerships, Kodak collects competitors' cameras and encourages competitors to collect Kodak's cameras; we exchange cameras with each other on a monthly basis. The net result is more overall recycling.
- 3. Depending on the camera model, between 76% and 90% of camera components are either re-used or recycled.

Further information on the global Company OTUC recycling programme can be found at www.kodak.com.

#### **Consumer Imaging**

Kodak Limited in the UK played its part in helping the Corporation obtaining this recognition for environmental activities.

Kodak Limited collected nearly 3 million OTUCs from processing laboratories across the UK and put them into a re-manufacturing programme during 2000. This is a 38% increase on the 1999 figure. This significant increase ensures that more materials are reused rather than being thrown away by photographic processing laboratories.

# 4. Manufacturing UK Operations

There are three manufacturing sites in the UK which have different operations and different environmental aspects and impacts. There is one Part A Process and four Part B Processes at Harrow and two Part A Processes at Kirkby. Part A Processes are regulated by the Environment Agency (EA) and Part B Processes by the appropriate Local Authority. All sites generate some of their energy requirements themselves and all sites are registered to ISO 14001, the international environmental management system standard.

#### **4.1** Annesley (Nottinghamshire)

Annesley is a film finishing facility for wide rolls that come from other parts of the Eastman Kodak Company. There is also spooling and packing of 35 mm and roll film products for the amateur and professional photographic industries. Component manufacture of metal and plastic parts also takes place at Annesley.

#### 4.2 Harrow (North West London)

Harrow produces a wide range of film materials for the printing and publishing industry, mostly for customers in Europe, India and Japan. It also has an on-site effluent treatment plant. Kodak Ektacolor paper is made at Harrow for professional, industrial and commercial photographers and wholesale and retail companies across Europe, Africa and the Middle East.

### 4.3 Kirkby (Merseyside)

Kirkby produces a range of sensitising chemicals used in the manufacture and processing of photographic film and paper. The site has undergone significant re-structuring in 2000 when a significant proportion of its production operations were transferred to non-UK plants. This has resulted in a re-basing of data in this report compared to previous reports. It has its own on-site facilities for dealing with wastewater treatment, solvent recovery and treating used photoprocessing solutions.

### 5. Manufacturing Environmental Management Programmes

#### **5.1 ISO 14001 Environmental Management System**

All Kodak Limited manufacturing sites have been registered to ISO 14001 since 1998. The associated environmental management systems at these sites have been integrated fully with the ISO 9001/2 quality management system. Internal and external audits of quality and environmental activities are carried out simultaneously.

Three different types of environmental objectives are set for each site annually as part of ISO 14001. An Improvement Objective is set when either an environmental impact is close to an acceptable or legal limit (e.g. VOC emissions at Harrow in 1997), or where an improvement would have significant positive effect on the local or global environment. Other examples of Improvement Objectives include reducing energy consumption per unit of production at each site.

Monitoring Objectives are set for environmental impacts that are under control. The third type is Management Objectives that are longer term or strategic aims.

#### 5.2 Manufacturing Environmental Key points

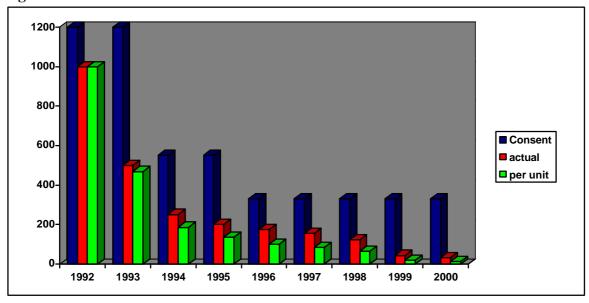
- Harrow airborne SOx and NOx emissions continue to decline per unit of production remaining well below permitted levels.
- Kirkby SOx and NOx levels now refer only to current and ongoing production activity. Data from previous activity has been removed from the chart.
- VOC emissions at Kirkby have dramatically reduced following investment in abatement technology. Harrow VOC usage per unit continues to decline.
- Effluent discharges per unit at Harrow continue to fall. Kirkby performance reflects product mix.
- Waste recycling at Harrow approaches 90%. All Annesley waste is recycled. Waste per unit of production shows a falling trend at Harrow, Kirkby and Annesley.
- Total energy consumption decreased at Harrow and Kirkby. The increase at Annesley was due to a significant increase in production during 2000.
- Water consumption per unit declines at Harrow and reflects changing production operations at Kirkby.

#### **5.3 Manufacturing Environmental Data Charts**

The following charts provide information on the key environmental impacts from manufacturing operations. The charts are grouped to align with the Eastman Kodak Five-Year Worldwide Environmental Goals (see the Eastman Kodak web site). The charts have been constructed to show trends which, in some cases, is most easily done by reference to a base year. More data are included than was available in previous reports. The data on waste have been adjusted to reflect the current legislative classifications. The Kirkby data have been adjusted to reflect current and ongoing operations following significant manufacturing changes on that site. The charts continue to enable readers to identify trends in performance.

#### AIRBORNE EMISSIONS

Figure 1: Harrow SOx Emissions



**Figure 2: Harrow NOx Emissions** 

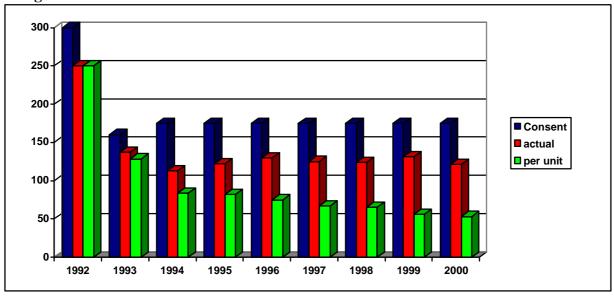


Figure 3 Kirkby SOx Emissions

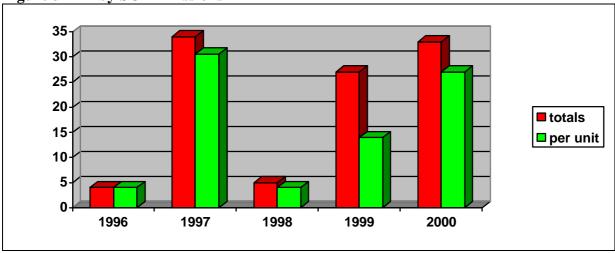


Figure 4 Kirkby NOx Emissions

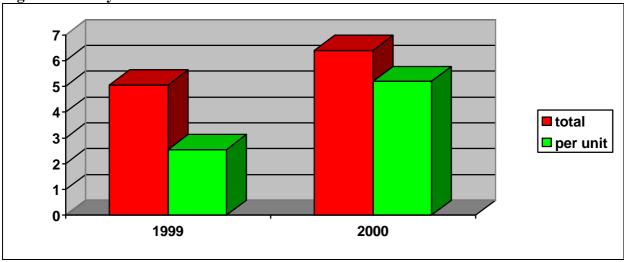
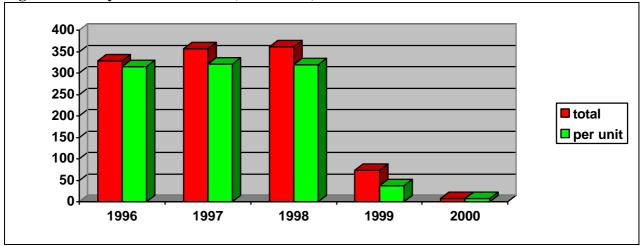


Figure 5 Kirkby VOC Emissions (as Toluene)



# **SOLVENT/ VOC USE**

Figure 6: Harrow Volatile Organic Compounds (VOC) Used

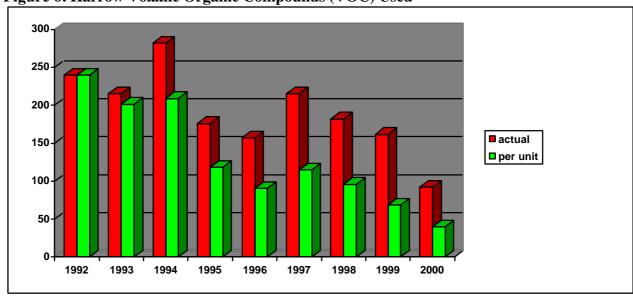
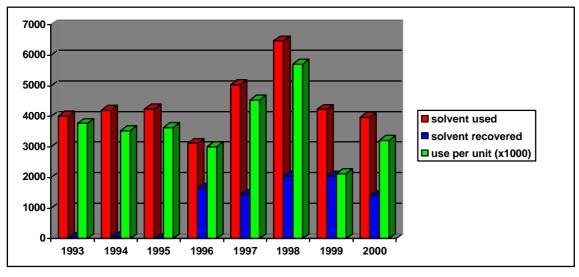


Figure 7: Kirkby Solvent Used/Recovered



# **EFFLUENT**

**Figure 8: Harrow Trade Effluent Discharges** 

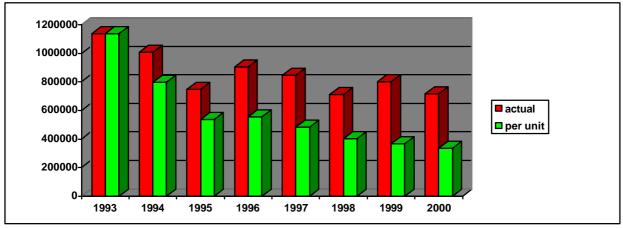
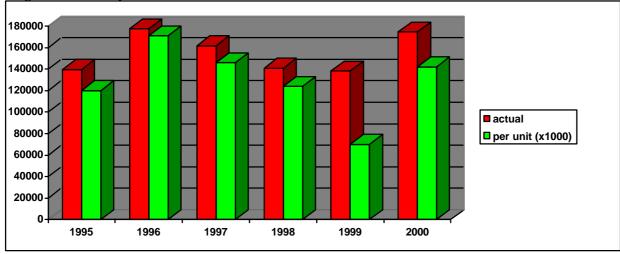
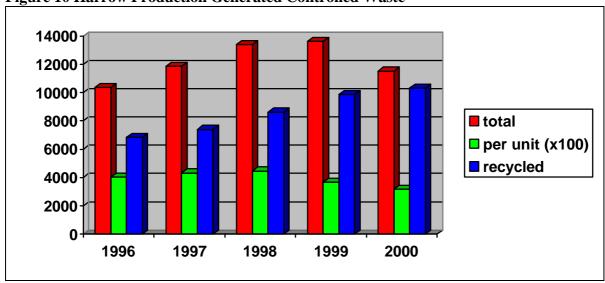


Figure 9: Kirkby Site Effluent Volume



# WASTE

Figure 10 Harrow Production Generated Controlled Waste



**Figure 11 Harrow Other Waste** 

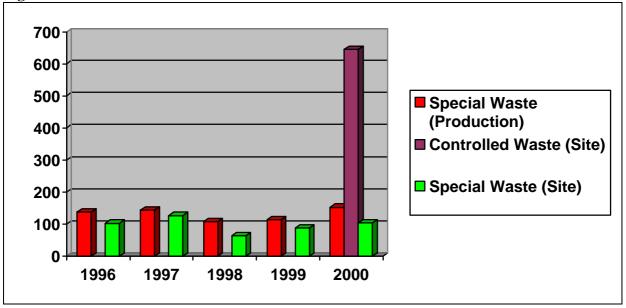


Figure 12: Kirkby Controlled Waste

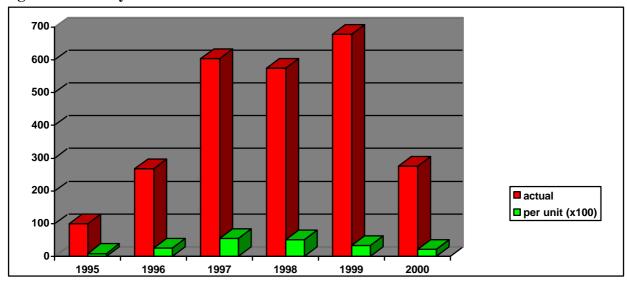


Figure 13 Kirkby Special Waste

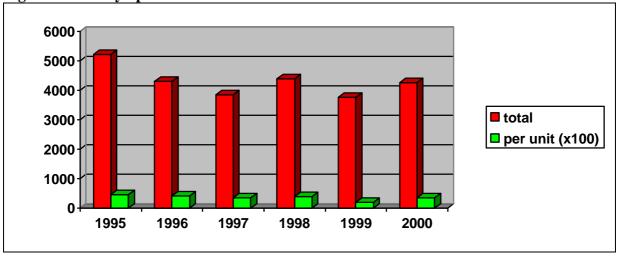
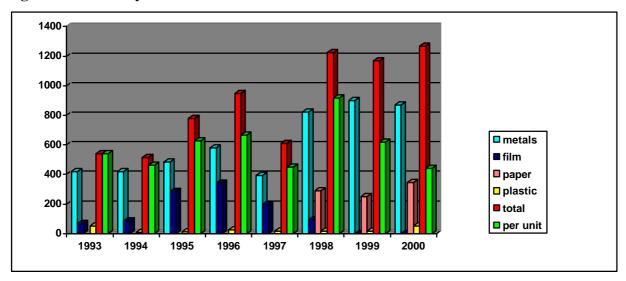


Figure 14: Annesley Waste



# **ENERGY**

**Figure 15: Harrow Energy Consumption** 

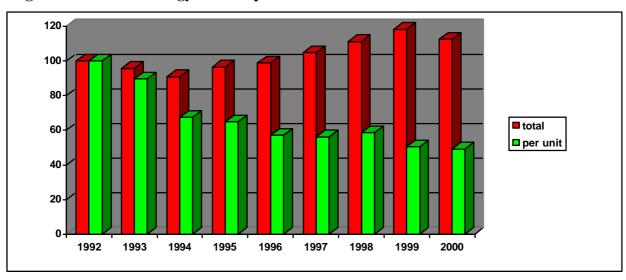
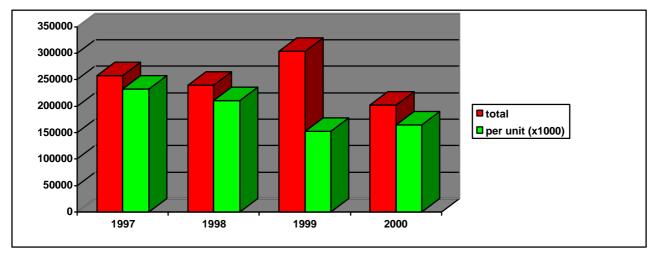
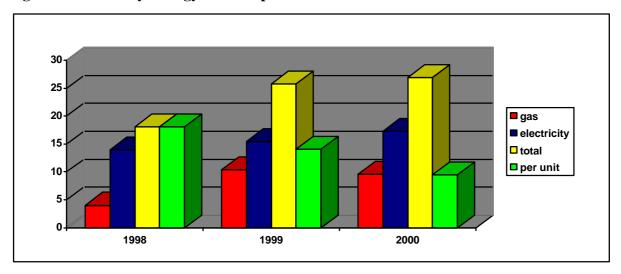


Figure 16: Kirkby Energy Consumption

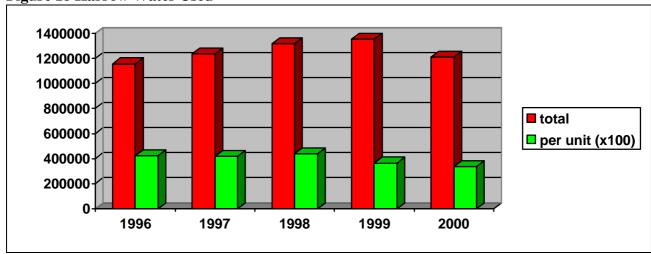


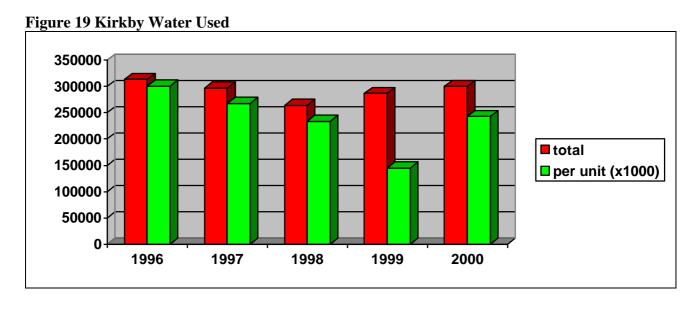
**Figure 17: Annesley Energy Consumption** 



# **WATER**

Figure 18 Harrow Water Used





# 6. Research and Development

An important role of the Research and Development (R&D) Division at Harrow is to design global products with reduced environmental impact as a key requirement. R&D participates in Corporate environmental technology programmes which include minimising the environmental impact of imaging chemicals, silver recovery, water conservation and biogrowth control. Special emphasis is given to the design of complete photoprocessing systems that reduce the overall impact on the environment.

All new product development in Eastman Kodak follows environmental design objectives laid out in an internal guidance process - the Imaging Product Environmental Impact Strategy (IPEIS), available on the desktop to all who need it. Kodak Limited R&D at Harrow not only uses this guidance in its work, but has been involved in the development and upgrading of this strategy since its inception a decade ago. Training is given to scientists via a Design for the Environment (DfE) course, including how to use IPEIS, which was further developed and delivered in 2000.

The R&D Analytical Laboratory plays an important role in providing Technical Support for the Harrow manufacturing site by monitoring groundwater (organic components and metals), surface waters (organic components, metals, pH, conductivity, and anions), local river water (organic components, metals, pH, conductivity, and anions) and the foul drains (Chemical Oxygen Demand, silver and solids). This monitoring helps Kodak Limited to minimise its environmental impact, stay below consent limits, save on silver and avoid excessive effluent charges. The majority of this analytical work is NAMAS accredited.

The Green Quality Circle in R&D has, for several years, encouraged reductions in the consumption of energy, water and paper. The paperless office, at least as far as R&D is concerned, is on its way. Employees are encouraged to print only essential information and to use shared on-line databases as much as possible. The introduction of the electronic laboratory notebook has also been a significant step towards paper-less data sharing. In 2000, paper consumption was half that of 1997. Many opportunities for recycling have also been identified.

# 7. Communications and Education

Eastman Kodak is a worldwide sponsor of the worldwide fund for nature (WWF).

The Chemical Manufacturing Site at Kirkby is a member of the local Chemical Industries Association Responsible Care Cell and the local enforcing authorities are invited to some of the meetings to give previews and updates of forthcoming legislation. This involves regular meetings of local Merseyside chemical companies that discuss health, safety and environmental issues by sharing information and helping each other.

During 2000 Kodak Limited participated in the CBI's Business in the Environment forum.

Kirkby has several programmes with the local community. These include guided tours for schools of the wastewater treatment plant. Open Days for local science teachers, and working with a high school on a project of land use near the site and its environmental aspects, which is to be presented to the National Geographical Society. They also support the local action group to improve the water quality of the river Alt. Harrow actively works with local authorities, businesses and voluntary organisations to form working partnerships to establish policies for long-term sustainable development.

Further information on worldwide environmental activities across the Eastman Kodak Corporation is available on the Website *www.kodak.com*.

#### 8. Glossary of Terms Used

**BSI** -British Standards Institute

CBI -Confederation of British Industry
 CIA -Chemical Industries Association
 DfE -Design for the Environment

**EA** -Environment Agency

EMS -Environmental Management System
 HSE -Health, Safety and Environment
 ISO -International Standards Organisation

ISO 14001 -International Environmental Management System standard

**NOx** -nitrogen oxides, e.g. mainly nitrogen monoxide and nitrogen dioxide

**OTUC** -one-time-use camera

Part A/B -defined under the 1991 Environmental Protection (Prescribed

Process and Substances) Regulations supporting the 1990

Environmental Protection Act. Part A Processes are controlled by the Environment Agency and Part B Processes by the local authorities

QC -Quality Circle

**RTO** -regenerative thermal oxidiser

**SOx** -sulphur oxides

**trade effluent** -liquid effluent disposed from industrial (i.e. not domestic) premises

via the sewerage system

VOC -volatile organic compound WWF -Worldwide Fund for Nature

#### Kodak and Ektacolor are trademarks of Kodak.