Activities in the Workplace Environment Energy Conservation (anti-global warming measures)

 20% or better reduction in energy consumption per net sales in fiscal 2003, compared with figures for fiscal 1999



Carbon dioxide (CO2), which is released into the atmosphere when fossil fuels are burned, is the main cause of global warming. The Third Conference of the Parties (COP 3) to the United Nations Framework Convention on Climate Change in December 1997 stressed the need for a reduction in greenhouse gas emissions. The control of CO2 emissions through savings in energy use is one way in which global warming may be slowed.

Nikon has established a target for savings in energy use including electricity, which is a major source of CO₂ emission, of a 20% or better reduction (compared with fiscal 1999 levels per net sales) by fiscal 2003.

During fiscal 2001, we improved the efficiency of our air conditioning system and replaced our lighting system with one which uses energy more efficiently. We have also implemented and promoted various energy-saving measures such as improvements in the manufacturing process and conscientious use of lighting and office equipment. Due to Nikon's increased sales during the period, the energy savings for the year (compared with fiscal 1999 per net sales), were an impressive 29%.

Energy Use (calculated for electricity)/Energy Use per Net Sales



CO2 Emission



*Standard figures for calculating CO₂ emissions are taken from the "Environmental Activities Evaluation Program" (published September 1999 by the Environment Agency, now known as Ministry of the Environment).

Future Energy-saving Strategies

We intend to implement the following strategies as we head into fiscal 2003.

- Reduction in harmful emissions from air conditioning
- Highly efficient operations of utilities facilities
- Highly efficient operation of manufacturing facilities
- Renewal of aging facilities/equipment
- Standardisation of electrical load
- Integration of electrical facilities
- Improvements in quality control efficiency

Activities in the Workplace Environment Promotion of Reduction and Recycling of Waste

The manufacturing industry, which evolved as part of the mass production/mass consumption system, is currently at a crossroads in terms of the way things are done.

Economic expansion has brought with it yearly increases in the amount of waste produced. Waste was for too long classified as "refuse", and simply discarded. As a result, waste has grown in amount and diversity, and there is a great deal of pressure on end-

Production, Disposal and Recycling of Waste

We implemented programmes to reduce both general and plastic waste, and strictly enforced refuse separation guidelines within our activities for this period, which enabled us to control our waste output (including that to be recycled). We also actively promoted the recycling of materials. As a result, the amount of waste disposed of during fiscal 2001 represented a 25% (335-ton) reduction against the amount recorded for fiscal 1999, and our recycling rate was 73% (up from 59% for fiscal 1999).

These results were achieved through utilising waste in RDF (Refuse Derived Fuel)^{*1}, raw material for furnaces^{*2} and thermal recycling^{*3}, all of which contribute to the process of recycling.

In the coming period, we will continue to achieve reductions in amount of waste through continued emphasis on the $3R^{*4}$ principle, and developing further recycling technologies and links with recycling agencies, in order to achieve a recycling rate of 85% for fiscal 2003.



*1 The practice of using waste as solid fuel. The waste is ground and separated, and then compressed and shaped and can be used as burnable fuel.

*2 Ground waste may be used as raw material in furnaces in place of coke.

*3 Certain waste may be burned and the heat released used as an energy source. This contributes both to the reduction of waste and to recycling. *4 3Rs: Reduce, Reuse and Recycle of-line disposal agencies to devise more efficient methods for disposing of waste.

Nikon is committed to the concept of a "Resource Recycling Society", in which the world's valuable resources are used as effectively as possible. Through our activities, we are headed in the right direction in pursuit of this objective.

Amount of Waste Generated/Amount of Waste Generated per Net Sales

Nikon has set a target to reduce waste generation by fiscal 2003 by at least 40% (compared with fiscal 1999 level per net sales). During fiscal 2001, we achieved a 27% reduction, bolstered by a growth in net sales.



Toward Zero Emissions

Our Mito Plant is currently facing the challenge of zero emissions (elimination of waste).

In order to increase the amount of waste being put to use, all paper is sent for recycling, waste wood is used as raw material for paper (wood chips) or fuel chips, PET bottles are used for RDF or recycled and again used as bottles, glass is utilised as a material in road foundations, and waste oil is used as a subsidiary fuel. Employees of the Mito Plant, through hard work and ingenuity, have discovered a wide variety of ways to utilise its waste and is aiming to completely eliminate the disposal of waste in landfills.

We are working towards introducing these activities across the whole of the Nikon Group, and finding suitable ways to implement waste reduction activities in all our places of business.



Achieve at least one zero-emission facility by end of fiscal 2003.

• Boost waste recycling rate to at least 85% in fiscal 2003.

 Reduce amount of waste generation per net sales by at least 40% in fiscal 2003 compared with figures for fiscal 1999.

Nikon

Breakdown of Waste during Fiscal 2001

The breakdown of Nikon's waste during fiscal 2001 is as shown in the graphs below. (Figures in the graphs have been rounded up or down to the nearest whole number, so some of the graphs do not total 100%).









Dioxin Reduction Measures

We have done away with the incinerators at all our plants as of January 2000, in order to reduce dioxin emissions.

We are constantly devising and implementing new methods for reducing and recycling waste that was previously incinerated.