

Promotion of Zero Waste Disposal Activities

Promotion of zero waste disposal activities while accomplishing both economic and risk management issues

Basic stance 1

Zero waste disposal with due regard to economics

Our zero waste disposal activities reflect our intention to minimize the waste that needs to be reclaimed by promoting its recycling. The Konica Minolta Group believes that due consideration for real-world economics while reliably implementing risk management is indispensable to the steadfast promotion of such activities. Accordingly, we set cost-cutting targets as well as stipulate recycling and final disposal rates (reclamation rate) in order to achieve Level 1: Zero Waste Disposal criteria. Achievement of Level 2: Zero Waste Disposal criteria requires that we set reduction rates for external emission volumes, while also striving for further reductions in cost and risk. Characteristic of Konica Minolta's zero waste disposal activities is the fundamental integration of these activities in management from both risk management and economic perspectives.

•Konica Minolta Group zero waste disposal criteria

Level 1 criteria

- Resource recovery rate: over 90%
- Final disposal rate: less than 5% (including secondary residue)
- Cost reduction: over 90% reduction in external payments (from fiscal 1998 levels)

Level 2 criteria

- Reduce the volume of waste discharged externally by 30% per unit of sales (from fiscal 2001 levels)

Results of zero waste disposal activities:
Approximately ¥1.6 billion annual savings

First of all, in order to achieve this target, we try not to acquire unnecessary items, and fundamentally reduce waste in both resources and costs. Secondly, we efficiently use all acquired resources, minimize emissions, and try to reduce external emissions by implementing internal recycling. In terms of final emissions, we promote external recycling and try to ultimately reduce the reclamation volume.



Integrated management of information on waste disposal for appropriate handling

We implement risk management in order that disposed waste is reliably and properly handled. For Group companies in Japan, we have established criteria to select waste disposal contractors. We select reliable contractors through careful investigation, including preliminary and field surveys, which are then registered and managed on a database.

A wide range of related information, such as illegal waste disposal, regulations, environmental technologies and other knowledge accumulated within the Group is also included in the database. This information is managed in an integrated manner to ensure the most appropriate waste disposal and to improve this activity level across the entire Group.

Results of resource recovery

Reduction in landfill volume by promoting resource recovery

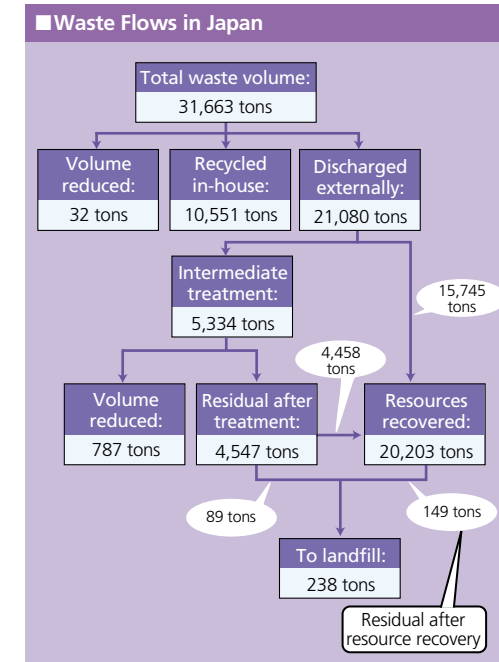
In pursuing resource recovery, the first priority is given to in-house recycling of leftover materials produced in the manufacturing process. To facilitate this, we are conducting research and developing new recycling and production technologies.

In terms of landfill disposal, we consider that post-recycling secondary residuals, such as energy recovery, is also the emitter's responsibility; accordingly, we are acutely aware of the disposal volume. In order to reduce it, we thoroughly implement waste separation and also select the recycling route after checking the amount of secondary residual.

As a result, the total waste volume from Group manufacturing sites in Japan for fiscal 2004 was 31,663 tons, recovered resources amounted to 30,755 tons and landfill accounted for 238 tons. Thus, the resource recovery rate was 97.1% and final disposal rate (landfill rate) was 0.75%.

Annual changes in total waste volume, resource recovery rate and final disposal rate are published on our website.

<http://konicaminolta.com/pr/ecodata>



Zero waste disposal achievements

Five more sites achieved Level 1 criteria, and three more sites achieved Level 2 criteria. We are upgrading our activities with the focus shifting to the next phase.

In fiscal 2004, five more sites achieved Level 1 criteria, bringing the total number of sites that have achieved this level to 19. In particular, this result by two of Konica Minolta Chemical Co., Ltd.'s chemical facilities for which its is especially difficult to implement resource recovery from waste was a tremendous achievement.

Furthermore, three sites have achieved Level 2 criteria for the first time within the Group. In and after fiscal 2005, we will strive not only to secure Level 1 compliance by those sites that have not yet done so, but also set Level 2 as the standard for the next phase. At the same time, we will further upgrade our activities.

•Sites that achieved zero waste disposal in fiscal 2004

Level 2

Kobe Site

Efficiently implemented bulk manufacturing of TAC films per type reduced manufacturing losses generated by switching type, and extended internal recycling of leftover materials that would previously have been disposed of.



Kofu Site

Implemented internal recycling of solvents generated during the manufacturing processes for dry medical films by establishing a distillation facility within the site. Usage of recycled solvents from cleaning the facility has been steadily expanded, and beneficial effects have been achieved in both reduction of waste and cost cutting.



Tokyo Hino Site

Remarkable effects were accomplished in the reduction of losses through the packaging process of wet type medical films and simplification of packaging. The site also tried to reduce waste volume by improving the manufacturing process for TAC film and other products, expanding internal recycling of leftover materials generated by manufacturing and achieving reductions in waste via cost cutting.



Level 1

Itami Site

This site has long striven to reduce the volume of wastewater treatment by recovery of boron. In addition, internal recycling of waste glass has been promoted during the lens manufacturing process, with impressive results.



Konica Minolta Chemical Co., Ltd. Shizuoka and Fukushima Facilities

These sites have long promoted internal recycling of used solvents through distillation. A new sludge drying system has been installed within the site, and various other measures have been implemented, such as trying to recycle raw materials for cement.



Konica Minolta Components Co., Ltd.

While the types of waste become ever more diverse in relation to the increase in the number of new businesses, the company has been promoting waste separation and resource recovery, and also reduced manufacturing losses.



Okayama Minolta Seimitsu Co., Ltd. (now known as ARK OKAYAMA Co., Ltd.)

The company extracted recyclable items from waste, increased its resource recovery rate and reduced losses from magnesium moldings.

