

Environmental Management

Achievement of Voluntary Plan Targets for Fiscal 2000

Nitto Denko's voluntary environmental conservation plan established in 1993 serves as a guideline for the company's environmental conservation activities. Nitto Denko's production plants carry out their activities in accordance with the plan. Targets for reduction of waste for fiscal 2002 were reached in fiscal 2000 -- two years ahead of time.

Targets for fiscal 2002

Achievements for fiscal 2000

Voluntary Plan 1

To reduce waste

Related article on pp. 13 - 14

Waste generated by production is not only a waste of resources, but also poses the problem of treatment and disposal. Along with reducing the amount of industrial waste by improving yield, Nitto Denko is also involved in recycling industrial waste.

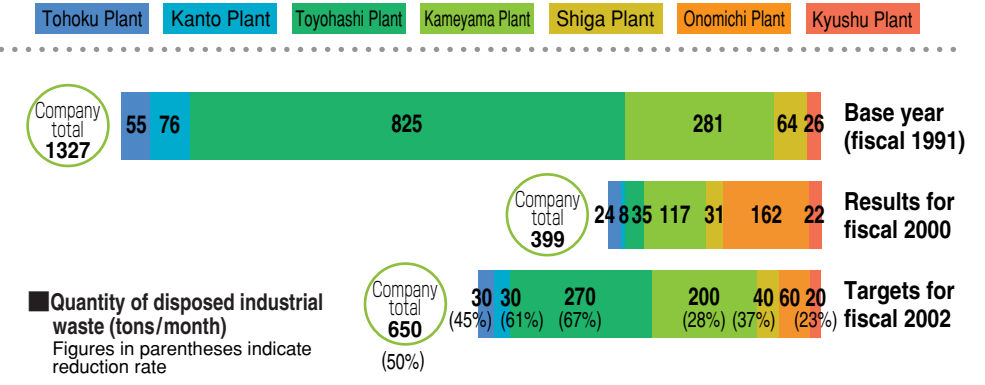
Quantity of disposed industrial waste: 650 tons/month

(By fiscal 2002, the company plans to reduce the quantity of disposed industrial waste by 50% in comparison to fiscal 1991.)

Established as attainable target by dramatically improving recycling rate, with self-disposal as a premise.

Quantity of disposed industrial waste: 399 tons/month

Targets for fiscal 2002 were reached with elimination of waste discharge being achieved at the Toyohashi plant and recycling activities at the Kanto and Onomichi plants. Targets have been revised upward beginning with fiscal 2001 and activities to reach the targets have begun.



Voluntary Plan 2

To prevent global warming

Related article on pp. 15 - 16

Use of fossil fuels has increased the amount of CO₂ (carbon dioxide) in the atmosphere, causing global warming. Nitto Denko is attempting to reduce emission of CO₂ by saving energy by improving consumption of energy per product unit*.

*Consumption of energy per product unit: Converting the amount of fuel or electric power used to crude oil is called "consumption of energy" "Consumption of energy per product unit" is consumption of crude oil per ¥1 million product unit.

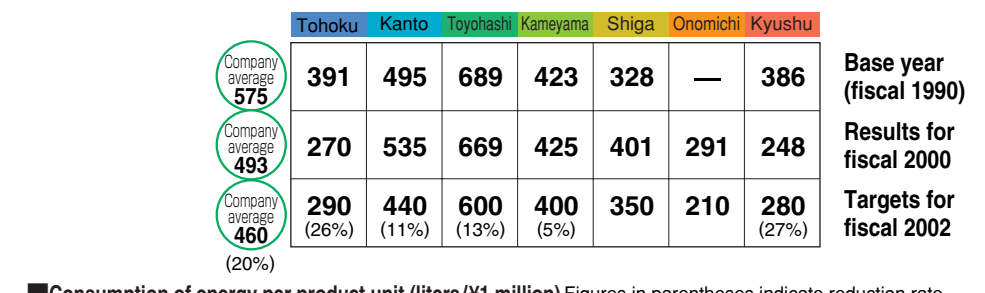
Consumption of energy per product unit: 460 liters/¥1 million

(By fiscal 2002, the company plans to improve consumption of energy per product unit by 20% in comparison to fiscal 1990.)

The company's target is to hold down the amount of energy used to the 460 liters per ¥1 million worth of production by crude conversion. The figure suggests that this can be achieved through energy saving activities such as introduction of co-generation in specified energy control plants.

Consumption of energy per product unit: 493 liters/¥1 million

Now that the second co-generation unit has begun operating at the Toyohashi plant, the amount of CO₂ discharge has been reduced and consumption of energy per product unit has been improved. Company-wide initiatives are continuing, such as installation of energy-efficient boilers and compressors at the Kanto and Shiga plants.



Voluntary Plan 3

To prevent air pollution

Related article on pp. 17 - 18

A large quantity of organic solvents is used in the manufacture of adhesive tape, our main business. When organic solvents volatilize into the atmosphere, they may cause photochemical oxidants to develop, or may become a remote cause of acid rain or global warming. Nitto Denko is actively involved in reducing the amount of organic solvent gases released into the atmosphere.

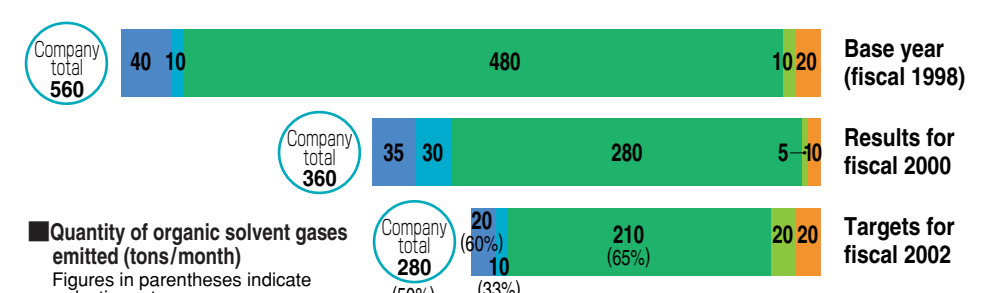
Quantity of organic solvent gases emitted: 280 tons/month

(By fiscal 2002, the company plans to reduce the quantity of organic solvent gases emitted by 50% in comparison with 1998.)

Taking the establishment of the PRTR system based in initiatives since the 1960s into account, Nitto Denko has intensified control of the amount of chemical substances discharged from its plants. The current target is to cut the amount discharged in 1998 by 50%, but the company hopes to ultimately reduce the figure to almost zero.

Quantity of organic solvent gases emitted: 360 tons/month

The amount of solvents used as Nitto Denko plants has increased due to an increase in production. Emission of solvent gases has however decreased due to development of solvent-free adhesive tape and enhanced efficiency by improvements to the solvent recovery unit. A deodorizing furnace has also been installed at Nitto group company Nitto Shinko Corp.



Voluntary Plan 4

International standards for environmental conservation

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Our domestic plants have obtained ISO 14001 certification, the international standard for environmental conservation. The company is currently taking steps to obtain certification for all companies in the Nitto Denko group, and is working to reduce impact on the environment in accordance with the environmental management system.

The company set two targets for obtaining certification of the environmental management system (ISO 14001). One was to obtain certification for all domestic production plants during fiscal 1998, and the other was to obtain certification for all domestic production group companies during 2000.

The main office obtained ISO 14001 certification in fiscal 2000. All domestic production group companies except one have obtained certification. Six of the domestic sales companies that were not included in the target voluntarily took the required measures to obtain certification.

Voluntary Plan 5

Aiming for global activities

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The overseas companies of the Nitto Denko group are involved in environmental conservation as well as those in Japan.

Based on Keidanren's "Global Environment Charter," Nitto Denko hopes to achieve the same level of environmental conservation at its overseas operations as those in Japan.

Initiatives are currently being undertaken at Nitto Denko (Taiwan) Corporation, which was established in 1969. When building new plants overseas, the design is reviewed to make sure that Nitto Denko and local engineers take the natural environment into account at the planning and design stage.

Topics

New targets set for eliminating discharge of industrial waste

Because industrial waste reduction targets for fiscal 2002 have already been achieved, Nitto Denko has revised its targets upward and has accelerated company-wide efforts to achieve the new targets.

New targets

- Recycling rate **98%** or higher (fiscal 2002)
→ Elimination of waste discharge from plants
- Control Reduce value of industrial waste* that was 17% in fiscal 2000 by **2%** to 15% in fiscal 2002, and by **5%** to 12% in fiscal 2005.

*Value of industrial waste ratio = $\frac{\text{Value of industrial waste (cost of materials and processing)}}{\text{sales value of own products}} \times 100$