

Environmental Accounting Activities

Introduction and establishment of environmental management systems

The Nitto Denko Group collects and compiles numerical data on the relationship between environmental load and business activities from an original point of view, and as the basis of our environmental accounting operations. We think of environmental accounting as a tool for balancing the environment and business, and accordingly report our figures. Nitto Denko is also active in environmental accounting efforts outside the company as a member of the "committee on corporate research of environmental accounting" of the Ministry of the Environment and a similar committee under the Ministry of Economy, Trade and Industry.

Expanded Accounting Range to Overseas Companies in 2002

In fiscal 2002, the Nitto Denko Group introduced environmental accounting at 7 overseas group companies. This added to the previous range of the Nitto Denko parent company and 5 group companies in Japan. Future plans are to gradually add and consolidate other group manufacturing companies.

Fiscal 2000: Nitto Denko parent company
Fiscal 2001: Nitto Denko parent company and 5 group companies in Japan
Fiscal 2002: Nitto Denko parent company, 5 group companies in Japan and 7 group companies outside Japan

Environmental Accounting Features at Nitto Denko

The Nitto Denko Group has researched the relationship between environmental load and business activities using guidelines from the Ministry of the Environment and the Ministry of Economy, Trade and Industry as a reference, and by working from an original point of view. Our environmental accounting system features the following.
[1] An environmental budget is compiled by each division and group company in order to identify individual environmental topics and responsibilities.

[2] In addition to the environmental protection cost indicated in guidelines of the Ministry of the Environment, the purchasing and processing cost of materials that do not become products (value of industrial waste) and the purchasing cost of energy, solvent and water consumed in in-house manufacturing are also defined and recognized as environmental impact costs. The idea here is that, by effectively using the environmental conservation cost, reducing the environmental impact cost produces environmental results. The goal is to lower total cost by improving natural resource productivity.

Environmental budget results calculation table (Nitto Denko non-consolidated base)

1. Environmental cost (million yen/month)

Categories	Fiscal 2002 budget (A)	Fiscal 2002 results (B)	Balance (B-A)	Budget ratio (B÷A)
Total sales	17,885.0	18,786.3	901.3	105.0%
Production amount	17,421.4	17,935.2	513.8	102.9%
Environmental conservation costs				
General and administrative overhead	72.4	76.1	3.7	105.1%
Treatment for industrial waste	88.3	86.6	▲1.7	98.1%
External services for environmental management	16.3	15.1	▲1.2	92.6%
Personnel	39.7	38.8	▲0.9	97.7%
Depreciation	98.5	101.5	3.0	103.0%
R&D&E	83.7	81.0	▲2.7	96.8%
Total	398.9	399.1	0.2	100.1%
Environmental impact costs				
Value of industrial waste	2,589.1	2,796.2	207.1	108.0%
Energy	337.2	340.4	3.2	100.9%
Organic solvents	135.3	141.0	5.7	104.2%
Water	20.8	25.3	4.5	121.6%
Total	3,082.4	3,302.9	220.5	107.2%
Ratio of environmental impact costs	17.2%	17.6%	0.4%	102.3%

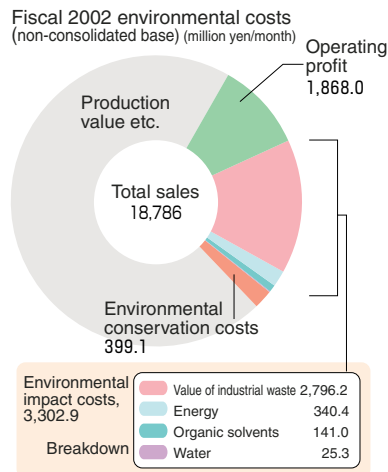
2. Beneficial to the environment

Categories	Fiscal 2002 budget (A)	Fiscal 2002 results (B)	Balance (B-A)	Budget ratio (B÷A)
Environmental impact costs (million yen/month)	3,082.4	3,302.9	220.5	107.2%
Ratio of environmental impact costs	17.2%	17.6%	0.4%	102.3%
Cost of selling materials of value (million yen/month)	4.6	8.9	4.3	193.5%
Voluntary				
Quantity of disposed industrial waste (t/month)	2,528.8	3,096.5	567.7	122.4%
Recycling rate	97.8%	93.9%	▲3.9%	96.0%
Value of industrial waste ratio	14.9%	15.6%	0.7%	104.7%
Consumption of energy (t/month)	8,623.7	9,131.6	507.9	105.9%
Consumption of energy per product unit (t/million yen)	495.0	532.3	37.3	107.5%
Solvent emission (t/month)	160.9	167.4	6.5	104.0%

Tabulation range
Nitto Denko non-consolidated base
*Ratio of environmental impact costs = environmental impact costs ÷ total sales
*Value of industrial waste: Purchasing and processing cost of materials that do not become products

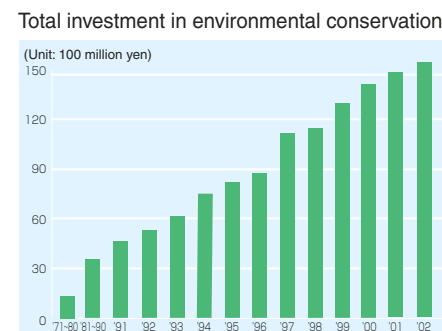
Results for Fiscal 2002

At the parent company alone, the increase in the environmental impact cost and particularly the value of industrial waste was approximately ¥200 million over the budgeted cost and more than the increase in sales for fiscal 2002. The resulting environmental impact cost ratio was 17.6% against a budgeted amount of 17.2%, indicating the targeted ratio was not achieved. Topics for consideration here are how to reduce the value of industrial waste or, in other words, how to minimize the generation of industrial waste.



Environmental Investment in Fiscal 2002

Investment in environmental conservation in fiscal 2002 was ¥930 million, bringing the cumulative total investment since 1971 to ¥16.07 billion.



Environmental budget results calculation table (Nitto Denko Group domestic companies)

1. Environmental cost (million yen/month)

Categories	Fiscal 2002 budget (A)	Fiscal 2002 results (B)	Balance (B-A)	Budget ratio (B÷A)
Total sales	2,675.5	2,840.8	165.3	106.2%
Production amount	1,679.7	1,731.8	52.1	103.1%
Environmental conservation costs				
General and administrative overhead	1.7	1.0	▲0.7	58.8%
Treatment for industrial waste	6.7	7.3	0.6	109.0%
External services for environmental management	3.6	3.5	▲0.1	97.2%
Personnel	4.3	4.2	▲0.1	97.7%
Depreciation	8.2	8.2	0.0	100.0%
R&D&E	8.1	3.6	▲4.5	44.4%
Total	32.6	27.8	▲4.8	85.3%
Environmental impact costs				
Value of industrial waste	88.7	103.4	14.7	116.6%
Energy	32.1	34.2	2.1	106.5%
Organic solvents	14.0	15.2	1.2	108.6%
Water	0.5	0.5	0.0	100.0%
Total	135.3	153.3	18.0	113.3%
Ratio of environmental impact costs	5.1%	5.4%	0.3%	105.9%

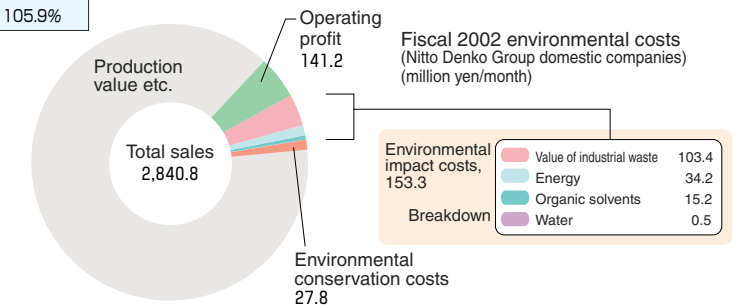
2. Beneficial to the environment

Categories	Fiscal 2002 budget (A)	Fiscal 2002 results (B)	Balance (B-A)	Budget ratio (B÷A)
Environmental impact costs (million yen/month)	135.3	153.3	18.0	113.3%
Ratio of environmental impact costs	5.1%	5.4%	0.3%	105.9%
Cost of selling materials of value (million yen/month)	0.2	0.0	▲0.2	0.0%
Voluntary				
Quantity of disposed industrial waste (t/month)	171.7	206.2	34.5	120.1%
Recycling rate	63.5%	72.7%	9.2%	114.5%
Value of industrial waste ratio	5.3%	6.0%	0.7%	113.2%
Consumption of energy (t/month)	686.4	643.2	▲43.2	93.7%
Consumption of energy per product unit (t/million yen)	408.6	371.4	▲37.2	90.9%
Solvent emission (t/month)	32.4	29.7	▲2.7	91.7%

Tabulation range
Nitto Shinko Corp., Nitoms Inc., Saitama Nitto Denko Corp., Mie Nitto Denko Corp., Nitto Life-tech Co., Ltd.
*Ratio of environmental impact costs = environmental impact costs ÷ total sales
*Value of industrial waste: Purchasing and processing cost of materials that do not become products

Results for Fiscal 2002

Though Nitto Denko aims to continually reduce the environmental impact cost ratio, the value of industrial waste rose more than the increase in sales. The environmental impact cost ratio was 5.4% against the budgeted 5.1%, indicating that the target ratio was not achieved.



Environmental budget results calculation table (Overseas Group Companies)

1. Environmental cost (million yen/month)

Categories	Fiscal 2002 budget (A)	Fiscal 2002 results (B)	Balance (B-A)	Budget ratio (B÷A)
Total sales	4,681.6	4,419.2	▲262.4	94.4%
Production amount	3,660.5	3,519.2	▲141.3	96.1%
Environmental conservation costs				
General and administrative overhead	7.0	5.2	▲1.8	74.3%
Treatment for industrial waste	16.7	15.2	▲1.5	91.0%
External services for environmental management	5.9	4.9	▲1.0	83.1%
Personnel	6.9	5.4	▲1.5	78.3%
Depreciation	14.1	11.9	▲2.2	84.4%
R&D&E	2.2	3.6	1.4	163.6%
Total	52.8	46.2	▲6.6	87.5%
Environmental impact costs				
Value of industrial waste	352.9	271.3	▲81.6	76.9%
Energy	109.3	119.0	9.7	108.9%
Organic solvents	62.5	77.7	15.2	124.3%
Water	5.8	5.8	0.0	100.0%
Total	530.5	473.8	▲56.7	89.3%
Ratio of environmental impact costs	11.3%	10.7%	▲0.6%	94.7%

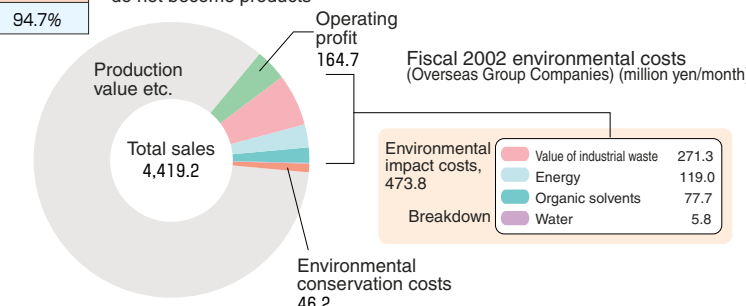
2. Beneficial to the environment

Categories	Fiscal 2002 budget (A)	Fiscal 2002 results (B)	Balance (B-A)	Budget ratio (B÷A)
Environmental impact costs (million yen/month)	530.5	473.8	▲56.7	89.3%
Ratio of environmental impact costs	11.3%	10.7%	▲0.6%	94.7%
Cost of selling materials of value (million yen/month)	8.8	2.5	▲6.3	28.4%
Voluntary				
Quantity of disposed industrial waste (t/month)	742.3	698.4	▲43.9	94.1%
Recycling rate	58.3%	55.6%	▲2.7%	95.4%
Value of industrial waste ratio	9.6%	7.7%	▲1.9%	80.2%
Consumption of energy (t/month)	3,548.8	3,493.6	▲55.2	98.4%
Consumption of energy per product unit (t/million yen)	969.5	992.7	23.2	102.4%
Solvent emission (t/month)	292.9	214.9	▲78.0	73.4%

Tabulation range
Nitto Denko (Shanghai Songjiang) Co., Ltd., Nitto Denko (Taiwan) Corporation, Nitto Denko Electronics (Malaysia) Sdn. Bhd., Nitto Denko Material (Thailand) Co., Ltd., Permacel, Hydranautics, and Nitto Europe N.V.
*Ratio of environmental impact costs = environmental impact costs ÷ total sales
*Value of industrial waste: Purchasing and processing cost of materials that do not become products

Results for Fiscal 2002

Environmental accounting was introduced at overseas group companies for the first time this year. The environmental impact cost ratio came in under the budgeted amount. The future will involve continual improvements and making environmental accounting a regular practice.



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