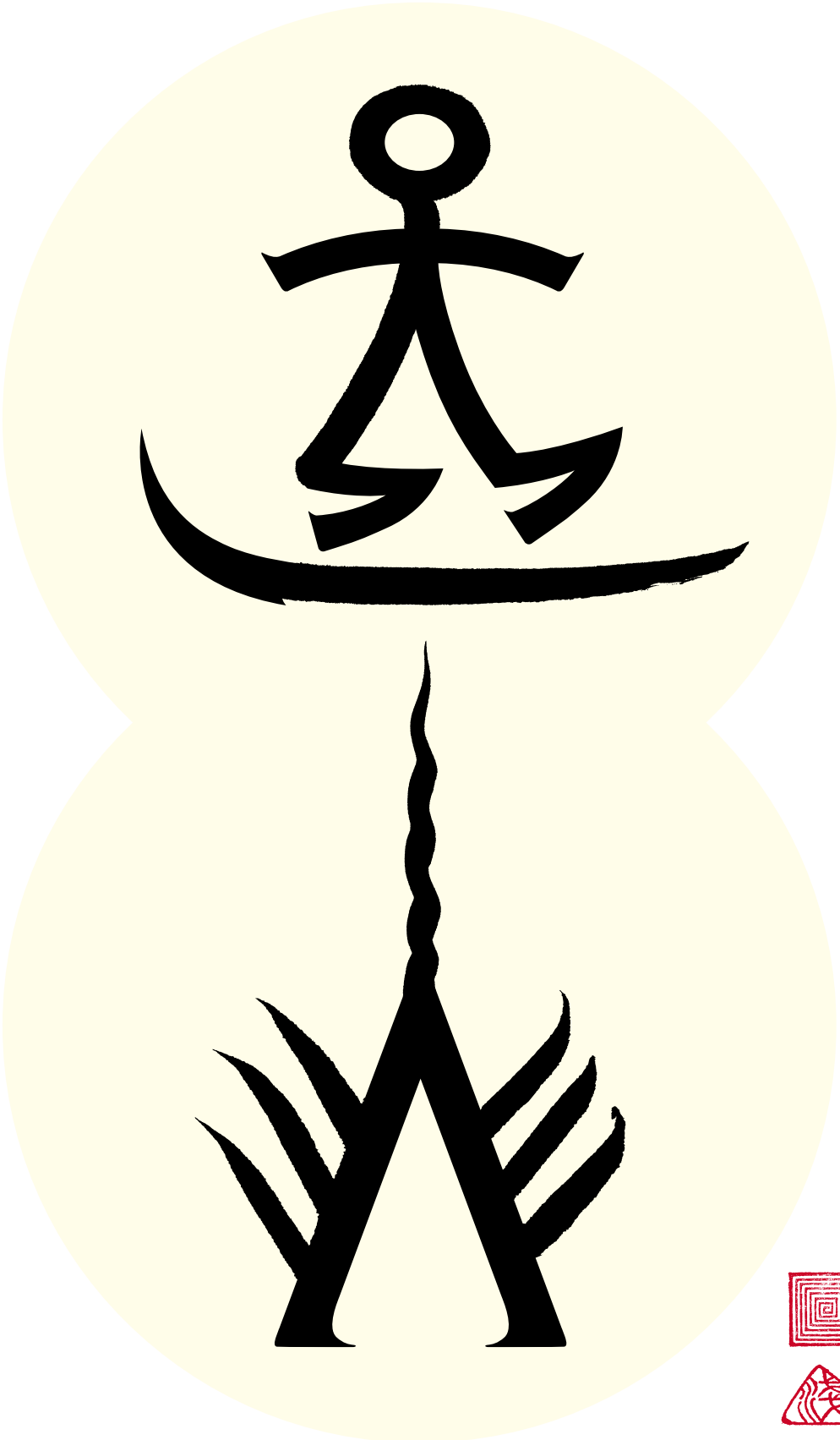
DNP

DNP Group Environmental Annual Report 2002
April 2001 - March 2002



Accelerating greenification

DNP Group Environmental Annual Report 2002

Kensyou Meidai method

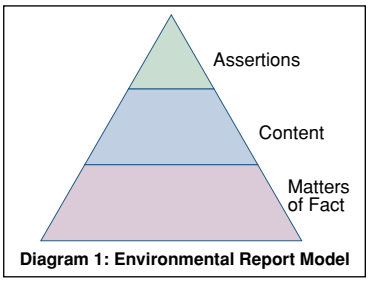


Diagram 1: Environmental Report Model

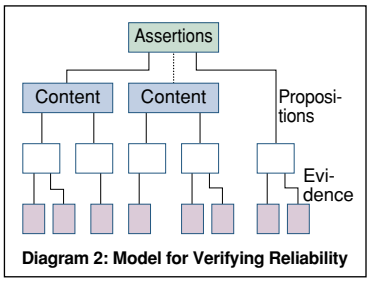


Diagram 2: Model for Verifying Reliability

Contents

Basic Policy of the 2002 Environmental Report

Reporting Policy

- The Ministry of the Environment's 2000 Environmental Reporting Guidelines were used as a reference in creating this report.
- Details of DNP's businesses are explained by division.
- This report begins with a special feature for 2002.
- We have enhanced explanations of our environmental performance.
- We continue to report on the activities of each of our sites.
- An independent verification of this report's content was conducted based on new criteria, the Kensyou Meidai method, which was introduced by Shin Nihon & Co.

Shin Nihon & Co. Shin Nihon & Co. checks to ensure that the assertions and content of this report, and the content and matters of fact are consistent with one another.

Shin Nihon & Co.'s Kensyou Meidai method

Developed by Shin Nihon & Co., the Kensyou Meidai method is for the purpose of conducting an independent verification of an environmental report. The method confirms the reliability of an environmental report's content.
Previously, to verify the reliability of an environmental report, verification was made to see if the content of a report agreed with the respective company's matters of fact.
In contrast Kensyou Meidai method, this new approach defines that an environmental report consists of three structural stages, mainly assertion, content and matters of fact. As a method for verifying reliability, the following structural stages are also conceivable: assertion, content, propositions and evidence (refer to diagrams 1 and 2). The first step is to establish two basic propositions, —do the assertions agree with the report's contents— and —do the report's contents agree with the company's matters of fact—. Several other concrete propositions are created for the purpose of further verification of these two factors. By confirming the rational basis for all of these propositions, the verifiers can then verify the reliability of the environmental report. The assertions used are the points that the company wishes to communicate to readers.

Scope, Period and Area of Coverage

- This scope of this report covers 55 sites.
- The period of coverage begins from April 2001 through March 2002. The report summarizes the global environmental activities carried out by DNP during this timeframe, the result of such activities and other related data.

Message from the President

Implementing Environmental Management

Yoshitoshi Kitajima
Chairman of the Board,
President and Chief Executive Officer

Global environmental issues are seriously growing problems arising from the high-level of economic growth that took place in the latter half of the 20th century. As a result of this, today we are surrounded by a wealth of industrial products and services. We are blessed with a consumer lifestyle which is filled with conveniences. Reflecting on this, from the perspective of the entire society, each and every company and consumer is responsible for this socio-economic society built on mass production, mass consumption and mass disposal. This is enhancing the impact on the earth's environment and is the cause of various environmental issues such as global warming.

[DNP's Initiative]

DNP and the DNP Group supply products throughout the various stages of our daily lives, in education, culture and the consumption of goods, mainly in the form of printed materials, packaging, decorative materials and electronic components. It is a fact that DNP uses a large amount of resources such as paper and plastics and also a vast quantity of energy. Also, we are fully aware of the fact that our products are deeply related to consumer's daily lives. For this reason, DNP, as a group, aims to promote production that contributes to the creation of a sustainable, recycling-oriented society.

In 1972, the DNP Group became the first in the industry to establish an Environmental Department, making it one of the earliest firms to tackle environmental issues. In 1993, the company created a proprietary environmental management system, the Eco-Report System. The system promoted aggressive involvement and continued improvement in areas such as the reduction of industrial waste, energy conservation, and the tracking and reduction of hazardous substances. In March 2000, the DNP Group's Environmental Committee was launched. In addition to making improvements at our manufacturing sites, we also strengthened our division for planning and developing environmentally-conscious products. Furthermore, in FY 1999, we began publishing an annual environmental report to disclose our activities. We also make an active effort to communicate environmental information, by publicizing it to the mass media. It is our intention to fully maximize the opinions of those outside the DNP Group in our environmental measures.

[Improving Our Eco-Efficiency]

For the 125th anniversary of our founding, we established the DNP Group's vision for the 21st century. One of the goals we established is to "contribute to an intellectually active, rich, 21st century society with emergent evolution." The phrase "contributing to the creation of an emergently evolving society" also denotes dealing with the global environment. The DNP Group's Codes of Conduct state that "we will make every effort to protect the prosperity and future of the human race by protecting the environment and using resources effectively." All employees at the DNP Group, therefore, make a conscious effort to take care of the environment.

In FY 2001, we made progress in reducing CO_2 and waste emissions and improved our recycling rate. Each of our manufacturing sites is handling a specific theme related to environmental issues for the 21st century. In addition, we believe it is essential for us to better our eco-efficiency.

As an "emergently evolving" corporation in the 21st century, the DNP Group pledges its full commitment to focusing on eco-efficiency throughout the product life cycle, and to earning a solid reputation as a company that implements environmental management throughout all stages of its business operations.

P&I Solutions DNP–Entering a new stage in the 21st century

In 2001, in line with the 125th anniversary of the founding of the DNP Group, we established a new vision. It is our goal to take the conventional information communication industry one step forward in the 21st century.

P&I Solutions DNP is the key word behind our concept. “P” stands for printing technology and “I” represents information technology.

In the 21st century, the DNP Group aims to integrate the printing technology it has developed and nurtured over many long years with the recent innovations of information technology. Maximizing knowledge and know-how used to solve a variety of industrial issues, we will provide solutions for emergently evolving companies in the 21st century which promise to produce new value.

Management Concept

The DNP Group will contribute to the creation of an intellectually active, rich, and 21st century society with emergent evolution.

Concept Phrase

P&I Solutions DNP

DNP Corporate Profile (as of March 31, 2002)

[Name]
Dai Nippon Printing Co., Ltd.

[Head Office]
1-1, Ichigaya Kagacho 1-chome
Shinjuku-ku, Tokyo 162-8001, Japan
Tel: +81-3-3266-2111
http://www.dnp.co.jp/

[Originally Founded]
October 1876

[Established]
January 19, 1894

[Capital]
¥114.464 billion

[Employees]
10,352 (DNP parent company)
33,390 (consolidated companies for the printing business)

[Sales Offices]
52 locations in Japan
16 locations overseas (including local affiliates)

[Main Plants (including affiliates)]
33 domestic plants
7 overseas plants

[R&D Facilities]
9 locations in Japan

Main Businesses

[Information Media]
Books, commemorative books, company history, schoolbooks, magazines, in-house magazines, corporate brochures, annual reports, business reports, environmental reports, product catalogs, posters, calendars, web sites, electronic publications, stock certificates, various types of forms, satellite broadcasting, others

[Lifestyle Products]
Packaging for general foods/beverages/desserts/general merchandise and pharmaceutical products, cups, plastic bottles, plastic containers, paneling and other interiors and exteriors for housing and furniture, decorative metal paneling, others

[Electronic Components & Information Media Supplies]
Shadowmasks, lead frames, photomasks, color filters for liquid crystal displays, projection television screens, printer ribbons, electrodes for lithium-ion rechargeable batteries, others

IC Cards
(first Certification by IC Cashcard Type Approval Council)

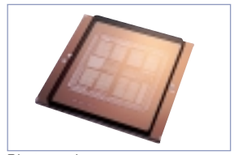

IDC


AnyStyle

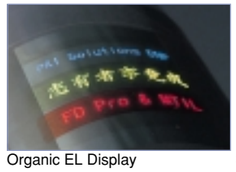

Orikomio!


IC Tag Package


ARTIST TOUCH

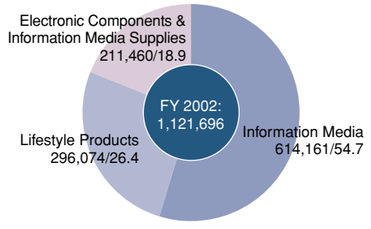

Photomask


Projection Television Screen


Organic EL Display


Sublimation Transfer Ribbons

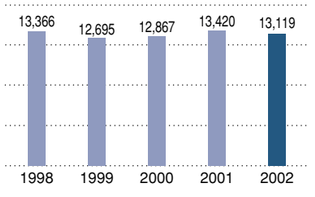
Parent-Only Division Sales (million yen/%)



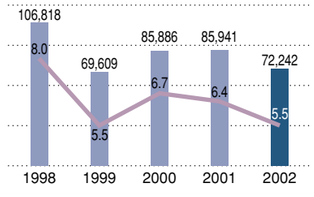
Employees

	March 31, 2000	March 31, 2001	March 31, 2002
DNP	11,165	10,698	10,352
Consolidated Companies for the Printing Business	33,698	34,094	33,390

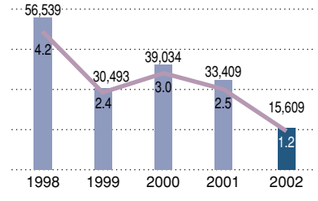
Consolidated Net Sales (100 million yen)



Consolidated Operating Income (million yen)
Consolidated Operating Income Rate (%)



Consolidated Net Income (million yen)
Consolidated Return on Sales (%)



DNP Organization

DNP Organization

55 sites covered under this report

Sapporo, Hokkaido
1 Hokkaido Dai Nippon Printing Co., Ltd. – Plate-making/printing/bookbinding/manufacturing of packaging (BC* Division)
2 Head Plant, Hokkaido Coca-Cola Bottling Co., Ltd. – Beverage manufacturing (BC Division)

Sendai, Miyagi
3 Tohoku Dai Nippon Printing Co., Ltd. – Plate-making/printing/bookbinding/manufacturing of packaging (BC Division)

Izumizaki, Nishi Shirakawa-gun, Fukushima
4 Izumizaki Plant, Dai Nippon Printing Technopack Co., Ltd. – Plate-making/printing plate/printing (Lifestyle Products Division)

Utsunomiya, Tochigi
5 DNP Graphica Co., Ltd. – Printing/bookbinding (Information Media Division)

Ushiku, Ibaraki
6 Ushiku Plant, DNP Data Techno Co., Ltd. – Manufacturing of various types of plastic cards (Information Media Division)

Otone, Kita Saitama-gun, Saitama
7 F.D.P. Dai Nippon Co., Ltd. – Manufacturing of electronic parts for displays (Electronic Components & Information Media Supplies Division)

Shiraoka
8 Shiraoka Plant, Dai Nippon Offset Co., Ltd. – Offset printing (Information Media Division)

Kawaguchi
9 Kawaguchi Plant, Dai Nippon Offset Co., Ltd. – Offset printing (Information Media Division)

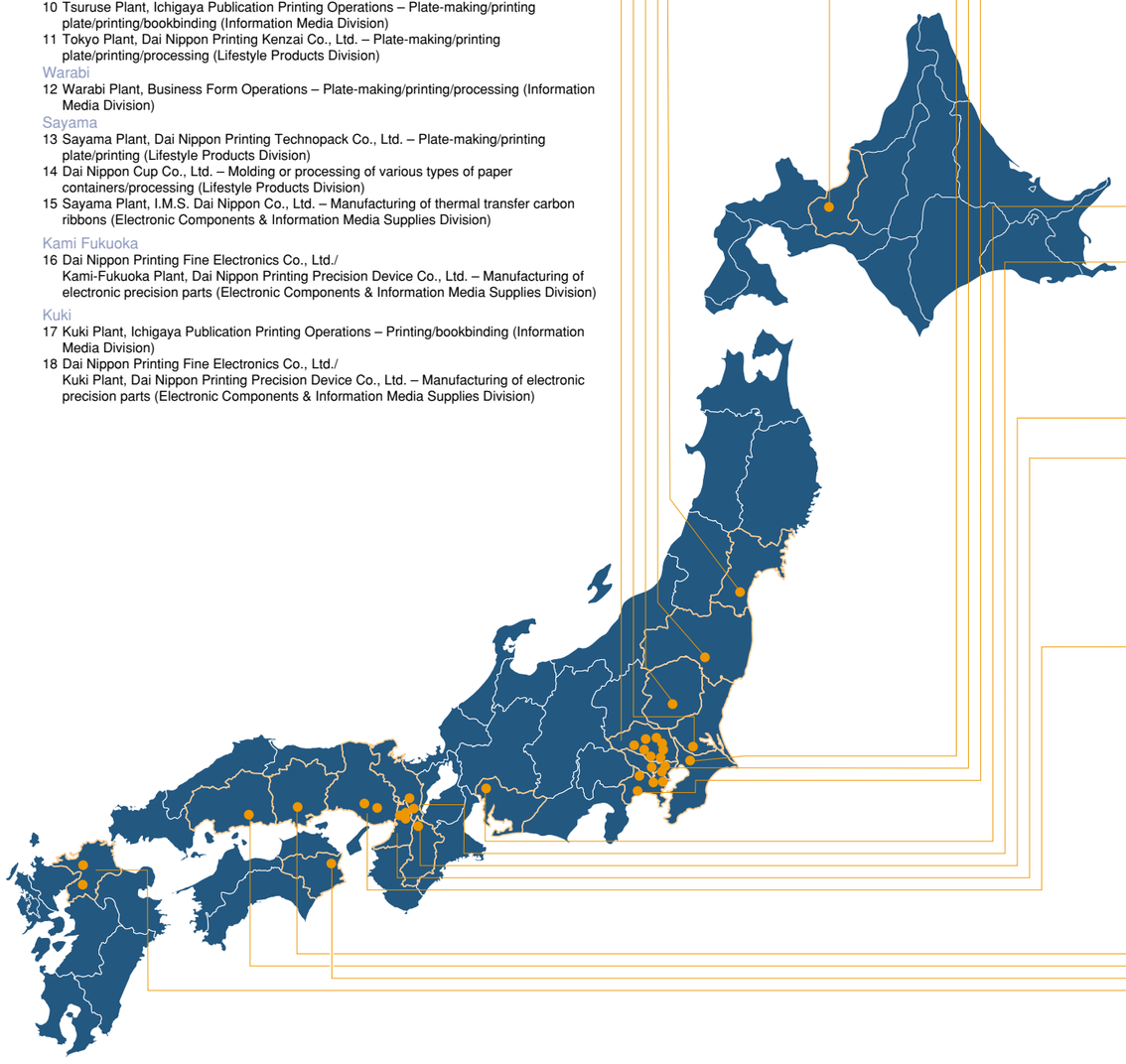
Miyoshi, Iruma-gun
10 Tsuruse Plant, Ichigaya Publication Printing Operations – Plate-making/printing plate/printing/bookbinding (Information Media Division)
11 Tokyo Plant, Dai Nippon Printing Kenzai Co., Ltd. – Plate-making/printing plate/printing/processing (Lifestyle Products Division)

Warabi
12 Warabi Plant, Business Form Operations – Plate-making/printing/processing (Information Media Division)

Sayama
13 Sayama Plant, Dai Nippon Printing Technopack Co., Ltd. – Plate-making/printing plate/printing (Lifestyle Products Division)
14 Dai Nippon Cup Co., Ltd. – Molding or processing of various types of paper containers/processing (Lifestyle Products Division)
15 Sayama Plant, I.M.S. Dai Nippon Co., Ltd. – Manufacturing of thermal transfer carbon ribbons (Electronic Components & Information Media Supplies Division)

Kami Fukuoka
16 Dai Nippon Printing Fine Electronics Co., Ltd./
Kami-Fukuoka Plant, Dai Nippon Printing Precision Device Co., Ltd. – Manufacturing of electronic precision parts (Electronic Components & Information Media Supplies Division)

Kuki
17 Kuki Plant, Ichigaya Publication Printing Operations – Printing/bookbinding (Information Media Division)
18 Dai Nippon Printing Fine Electronics Co., Ltd./
Kuki Plant, Dai Nippon Printing Precision Device Co., Ltd. – Manufacturing of electronic precision parts (Electronic Components & Information Media Supplies Division)



Kashiwa, Chiba
19 Kashiwa Plant, Dai Nippon Polymer Co., Ltd. – Molding, processing and printing of plastic containers (Lifestyle Products Division)
20 Dainippon Jushi Co., Ltd. – Manufacturing and processing of synthetic resin films (Lifestyle Products Division)

Shinjuku-ku, Tokyo
21 Ichigaya Plant, Ichigaya Publication Printing Operations – Plate-making/printing plate/printing/bookbinding (Information Media Division)
22 DNP Facility Service Co., Ltd. – Meal services, etc.
23 Enokicho Plant, Commercial Printing Operations – Plate-making/printing/bookbinding (Information Media Division)

Shinagawa-ku
24 Gotanda Plant, Ichigaya Publication Printing Operations – Plate-making/printing/bookbinding (Information Media Division)
25 SP Dai Nippon Co., Ltd. – Manufacturing of various advertising and promotional materials (BC Division)

Kita-ku
26 Akabane Plant, Ichigaya Publication Printing Operations – Printing (Information Media Division)
27 Akabane Plant, Commercial Printing Operations – Plate-making/printing/bookbinding (Information Media Division)
28 Dai Nippon Seihon Co., Ltd. – Bookbinding (BC Division)
29 DNP Logistics Co., Ltd. – Packaging/shipping (BC Division)
30 Dai Nippon Hoso Co., Ltd. – Processing of filling and packaging (BC Division)
31 D.N.K Co., Ltd. – Printing and manufacturing of machine tools (BC Division)

Fuchu
32 D.T. Circuit Technology Co., Ltd. – Manufacturing of printed circuit boards (BC Division)

Tsuzuki-ku, Yokohama, Kanagawa
33 Dai Nippon Printing Technopack Yokohama Co., Ltd. – Plate-making/printing plate/printing (Lifestyle Products Division)

Midori-ku, Yokohama
34 Tokyo Plant, The Inctec Inc. – Manufacturing of ink, varnish, pigments and dyes (BC Division)

Odawara
35 Sagami Yoki Co., Ltd. – Manufacturing of laminated tubes (Lifestyle Products Division)

Aikawa, Aiko-gun
36 Tokyo Plant, Dai Nippon Ellio Co., Ltd. – Printing and processing of metal sheets (Lifestyle Products Division)

Saiwai-ku, Kawasaki
37 DT Fine Electronics Co., Ltd. – Manufacturing of semiconductor photomasks (BC Division)

Moriyama-ku, Nagoya, Aichi
38 Tokai Dai Nippon Printing Co., Ltd. – Printing/bookbinding/manufacturing of packaging (BC Division)

Minami-ku, Kyoto, Kyoto
39 Kyoto Plant, Dai Nippon Printing Fine Electronics Co., Ltd. – Manufacturing of electronic precision parts (Electronic Components & Information Media Supplies Division)

Ukyo-ku, Kyoto
40 Kyoto Plant, Dai Nippon Printing Technopack Kansai Co., Ltd. – Plate-making/printing plate/printing (Lifestyle Products Division)

Kyotanabe
41 Tanabe Plant, Dai Nippon Printing Technopack Kansai Co., Ltd. – Plate-making/printing plate/printing (Lifestyle Products Division)

Kawanishi, Shiki-gun, Nara
42 Nara Plant, Business Form Operations – Plate-making/printing/processing (Information Media Division)

Hirakata, Osaka
43 Kansai Plant, The Inctec Inc. – Manufacturing of ink, varnish, pigments and dyes (BC Division)

Neyagawa
44 Neyagawa Plant, DNP Media Create Kansai Co., Ltd. – Printing (Information Media Division)
45 Kansai Plant, Dai Nippon Polymer Co., Ltd. – Molding, processing and printing of plastic containers (Lifestyle Products Division)
46 Osaka Plant, Dai Nippon Ellio Co., Ltd. – Printing and processing of metal sheets (Lifestyle Products Division)

Higashinari-ku, Osaka
47 Osaka Plant, DNP Media Create Kansai Co., Ltd. – Plate-making/printing plate/bookbinding (Information Media Division)

Kita-ku, Kobe, Hyogo
48 Kobe Plant, Dai Nippon Printing Kenzai Co., Ltd. – Plate-making/printing plate/printing/processing (Lifestyle Products Division)

Ono
49 Ono Plant, DNP Media Create Kansai Co., Ltd. – Plate-making/printing/bookbinding (Information Media Division)

Mitsu, Mitsu-gun, Okayama
50 Okayama Plant, I.M.S. Dai Nippon Co., Ltd. – Manufacturing of sublimation transfer materials (Electronic Components & Information Media Supplies Division)
51 Okayama Plant, Dai Nippon Printing Kenzai Co., Ltd. – Plate-making/printing plate/printing/processing (Lifestyle Products Division)

Mihara, Hiroshima
52 Mihara Plant, Dai Nippon Printing Precision Device Co., Ltd. – Manufacturing of electronic precision parts (Electronic Components & Information Media Supplies Division)

Tokushima, Tokushima
53 Shikoku Dai Nippon Printing Co., Ltd. – Plate-making/printing/manufacturing of packaging (BC Division)

Minami-ku, Fukuoka, Fukuoka
54 Fukuoka Plant, Kyushu Dai Nippon Printing Co., Ltd. – Plate-making/printing/bookbinding/manufacturing of packaging (BC Division)

Chikugo
55 Chikugo Plant, Kyushu Dai Nippon Printing Co., Ltd. – Plate-making/printing/bookbinding/manufacturing of packaging (BC Division)

* BC (Brother Company): Affiliate companies that manufacture products not related to the group's Information Media, Lifestyle Products and Electronic Components & Information Media Supplies divisions or related to several divisions. This includes some associate companies that were consolidated in FY 2001.

Other Domestic Consolidated Affiliates

Planning/Production/Typesetting/Prepress

Dai Nippon Art Co., Ltd.:
Scope covers a portion of the Ichigaya Plant, Ichigaya Publication Printing Operations

Dai Nippon Total Process BF Co., Ltd.:
Scope covers a portion of the Warabi and Nara plants, Business Form Operations

DNP Digitalcom Co., Ltd.
(planning and creation of Web site): Not included

DNP Media Create Co., Ltd.:
Scope covers a portion of the Enokicho Plant, Commercial Printing Operations

Dai Nippon Total Process Ichigaya Co., Ltd.:
Scope covers a portion of the Ichigaya Plant, Ichigaya Publication Printing Operations,

Dai Nippon Uni Process Co., Ltd.
Scope covers a portion of the Ichigaya Plant, Ichigaya Publication Printing Operations

Printing

Multi Print Co., Ltd. (printing coordination): Not included

Bookbinding

Dai Nippon Techtas Ichigaya Co., Ltd.:
Scope covers a portion of the Ichigaya Plant, Ichigaya Publication Printing Operations

Related Side Businesses

Dai Nippon Kaihatsu Co., Ltd. (purchase and sale of real estate): Not included
Direc Co., Ltd. (publication and sale of educational tools): Not included
MyPoint.com Japan Co., Ltd.
(provision of direct marketing services): Not included

Others

Dainippon Shoji Co., Ltd.: Not included

Message from the Managing Director of the Environment

Steady Progress in FY 2001

Hironori Kato
Chairman, Environmental Committee
Director

DNP and the DNP Group are involved in environmental management to contribute to a sustainable, recycling-oriented society. Furthermore, we make clear all of our environmental activities and the results achieved. These steps are taken as a part of our effort to gain public support as a good corporate citizen.

This environmental report is an essential tool for communicating specific information on our environmental activities to our stakeholders outside the company. The basic reporting policy of our FY 2002 report is to clarify the goals of the DNP Group herein and improve the credibility of this report's contents.

[FY 2001 Activities]

In March 2001, we confirmed that it was not possible to obtain public support in the 21st century if we did not contribute to the development of a sustainable, recycling-oriented society. In an effort to satisfy all of the Environmental Performance Indicators for Businesses outlined in the Ministry of the Environment's guidelines, we added new targets, such as the reduction of unusable materials and the mitigation of environmental impact during the transport of goods or supplies. Page 18 of this report specifically details our targets and the results of our activities in FY 2001. In FY 2001, at our electronic components-related divisions, we significantly improved environmental indicators related to waste by restructuring our manufacturing system and enhancing the yield on production output. Regarding indicators associated with CO_2 and energy conservation, areas which took a turn for the worse following the collapse of Japan's economic bubble, we are finally seeing results from efforts such as the introduction of a cogeneration system.

During the period under review, we cutback on capital expenditures for environmental conservation equipment, as a part of our overall cost reduction program. However, we nearly doubled our pollution prevention equipment used in areas such as recovering solvents at our business sites. Consequently, we were able to continue reducing our environmental impact on the air, as designated under the PRTR Law.

In March 2002, the DNP Group's Environmental Committee decided to promote further improvements in FY 2002, mainly with measures to control and reduce VOCs. As a part of our endeavor to achieve these targets, we are working together as a group to continually improve the global environment.

[Introduction of an Independent Audit]

Just as with our FY 2001 report, the contents of this report are subject to an independent audit to be carried out by Shin Nihon & Co. This year's audit will not only screen the report's contents but also will verify the reliability of our company's assertions and the results we obtained. Through this report, we are striving to enhance our accountability.

Feature 2002 “Accelerating Greenification”

As a major user of paper, the DNP Group actively aims to effectively use paper resources and recognizes the afforestation business as being a key issue.

Shin Nihon & Co. Shin Nihon & Co. checks to ensure that the assertions and content of this report, and the content and matters of fact are consistent with one another.

Plants absorb CO_2. The planting of greenery in metropolitan areas, a measure in resolving the urban heat island phenomenon, is not only effective in preventing global warming but also offers pleasant scenery.

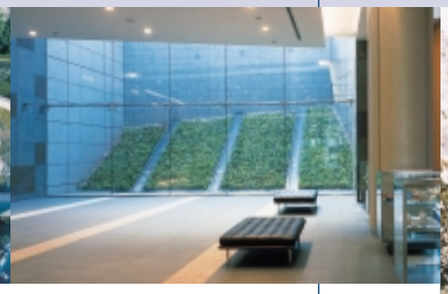
In this report, we introduce our afforestation efforts in the country of Vietnam and also our “greenification” activities being conducted by our Tokyo offices.

Feature 2002 “Accelerating Greenification”

Greenification Activities in Japan

■ C&I Bldg.

Located: Shinjuku-ku, Tokyo
Established: July 1998



The C&I building serves as the DNP Group’s information communication base. “C” stands for communication and “I” represents information. We have coined the phrase “in harmony with the environment.” In conjunction with this concept, we are attentive to the needs of our surrounding environment, making an effort to plant greenery around buildings and terraces. The area which we have planted with greenery now extends to 2,000 m^2. In addition, we carefully design our buildings with full consideration to the environment, so that rainwater can be reused, to ensure natural ventilation and so that we can take advantage of natural light sources.

Our landscaping consists of a variety of trees such as cherry trees and dogwood which bloom in certain seasons. We also included foliage that is indigenous to this area such as ginkgo trees and oaks. On site we have planted 129 trees consisting of 16 varieties.

■ Ichigaya Plant Rooftop Garden

Located: Shinjuku-ku, Tokyo
Established: October 1990

This rooftop garden is planted with evergreens such as fir and holly trees and also with seasonal plants such as cherry trees and hydrangeas. There are 20 different varieties and around 600 trees and plants in all. In June 2000, this rooftop garden received the Chief of Environmental Bureau Award from the Tokyo metropolitan government for contributing to the promotion of the city’s greenification.

Twelve years have passed since we first opened this rooftop garden. The trees we first planted are still growing with vitality. The fir, our symbol tree, and the cherry trees, which bloom in spring, are now 5 meters in height. This natural setting is built upon an artificially made foundation, with a 30-cm thickness.

Greenification of Our Plants

The DNP Group plants greenery in an effort to create a harmony between the surrounding environment and our production sites.

[Ushiku Plant] DNP Data Techno Co., Ltd. Ushiku, Ibaraki

Manufactures IC and magnetic cards such as cash cards and credit cards

[Utsunomiya Plant] DNP Graphica Co., Ltd. Utsunomiya, Tochigi

Prints and binds magazines, catalogs and pamphlets

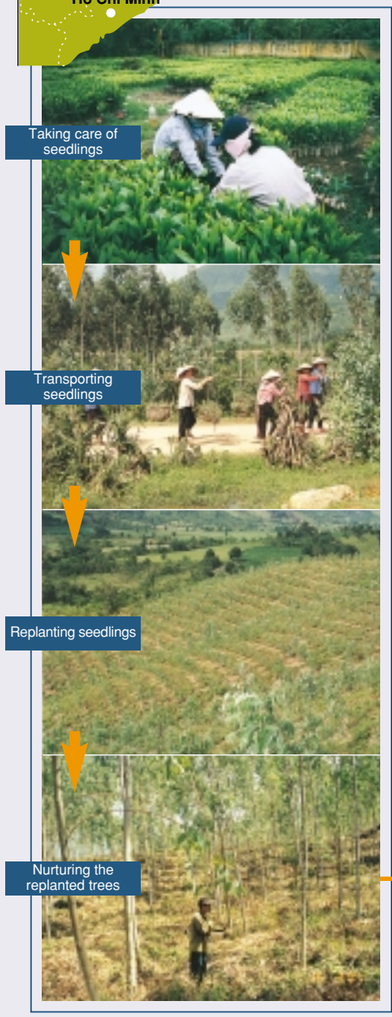
[Okayama Plant] I.M.S Dai Nippon Co., Ltd. Dai Nippon Printing Kenzai Co., Ltd. Mitsu-gun, Okayama

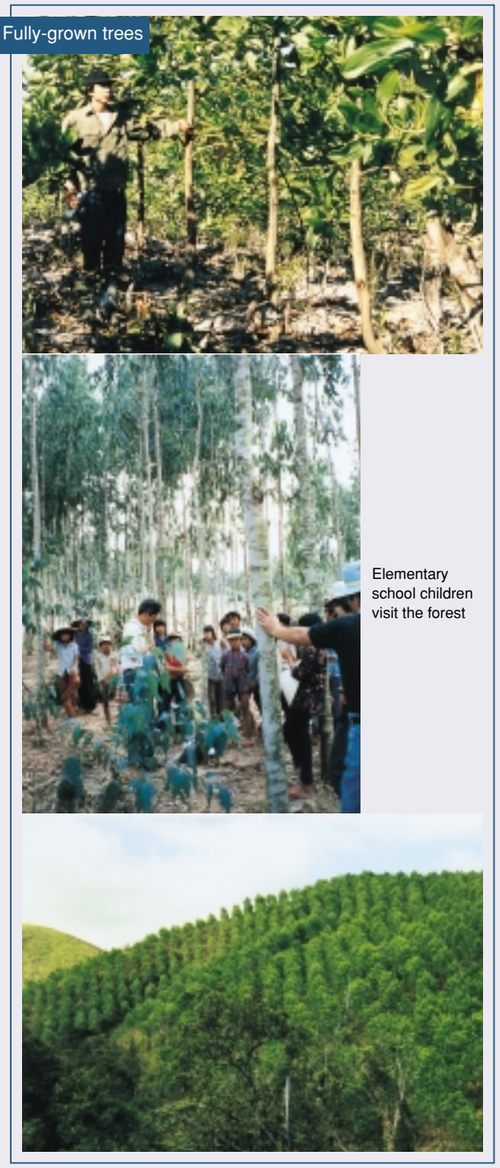
Manufactures sublimation transfer ribbons for digital camera printing and print club photos, prints decorative paneling for walls and floors, and produces electrodes for lithium-ion rechargeable batteries used in mobile phones and other mobile equipment

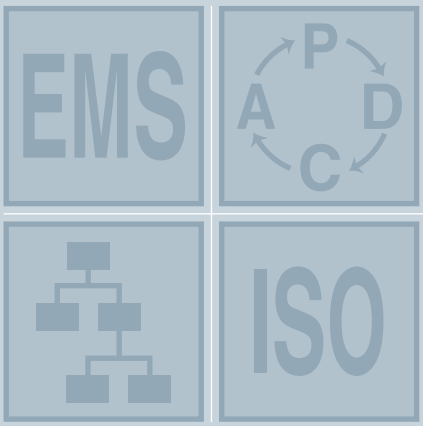
Greenification Activities Abroad

■ Reforestation Project in Vietnam Location: Binhdinh Province, Vietnam

In 1995, the DNP Group created a joint venture with New Oji Paper Co., Ltd. (currently Oji Paper Co., Ltd.) and Nissho Iwai Corp. to conduct a reforestation project in the Binhdinh province of Vietnam. The hilly areas in the region were left bare due to war and other disasters. The joint venture plans to plant acacia and eucalyptus trees on 9,100 hectares. In 2002, approximately 1,400 hectares was cut. This was the area replanted during the first year of the reforestation plan. The raw material is to be processed into chips in Vietnam. The cut area is replanted as a part of a sustainable afforestation project.







Environmental Management System

DNP Group's Environmental Philosophy and Vision for the 21st Century

DNP Group's Environmental Philosophy

In 1992, as part of our Codes of Conduct, the entire DNP Group made an environmental declaration expressing its intention to make every effort to protect the global environment and use resources effectively.

[Environmental Declaration]

We will make every effort to protect the prosperity and future of the human race by protecting the environment and using resources effectively.

Today we face the serious issue of how to protect the global environment. Due to the dramatic economic growth of recent years, our ecosystem is being destroyed through the depletion of the ozone layer, global warming, increasing volumes of industrial waste, and the careless consumption of natural resources. As a result, our earth's circulatory system is beginning to be affected. These problems, together with the rapid depletion of natural resources, should be a source of concern, since they threaten our daily life and may even stifle economic growth. We will act aggressively in addressing environmental issues, using our comprehensive technological resources to safeguard the prosperity and future of the human race.

(Excerpt from the DNP Group's Codes of Conduct)

The DNP Group's Environmental Policies

The DNP Group's efforts are directed towards the continuous prosperity of a world economy with limited resources and for the development of a society that recirculates resources. The DNP Group is making every effort to minimize the impact our business operations have on the environment, and this includes compliance with environmental laws and regulations as well as recognizing the relationship that each of our business activities has to the environment.

1. Each member of the DNP Group establishes and periodically reviews its own environmental policies and environmental targets, and puts into effect continuous improvement of its activities and the prevention of environmental pollution.
2. For all construction projects, and before designing and commissioning new facilities, we carry out a full and detailed environmental survey to assess the impact that the project will have on the environment, to make proper efforts to protect the environment.
3. When carrying out research, development and design for a new product, we consider the impact of the product on the environment throughout its life cycle, including the ordering of raw materials, production, distribution, use, and disposal. We give special consideration to energy conservation, resource conservation, and reducing the use of harmful chemicals.
4. When purchasing raw materials, stationery, and equipment, we choose items that are ecologically-friendly and easy to recycle.
5. In manufacturing a product, we aim to comply with environmental laws and regulations, and moreover we set up more stringent standards to reduce the emissions of pollutants into the air, watershed, and soil, and to prevent unpleasant odors, noise, vibration, and land subsidence. We are constantly improving facilities, techniques and manufacturing processes to promote the targets of energy conservation, resource conservation and the reduction of industrial waste.
6. When generating waste from business operations, we strive to achieve zero emissions by separating and recycling waste as much as possible.

Implementation of Environmental Management

In 1972, the DNP Group established the Environment Department at Dai Nippon Printing Co., Ltd. to initiate full-scale environmental activities, reduce the emissions of industrial waste, and conserve energy. In addition, this enabled the company to begin developing products with environmental conservation in mind.
In 1993, the Group formed the Eco-Report System as its management system. This signaled the start of the company's full-scale environmental management activities.
Furthermore, in March 2000, the DNP Group's Environmental Committee was launched. Prior to the set up of this committee, the environmental management system dealt mainly with manufacturing sites. However, the committee enhanced this system to encompass sales, planning and R&D and helped to further the group's environmental conservation activities.

DNP Group's Vision for the 21st Century

In May 2001, we declared the DNP Group's Vision for the 21st Century and embarked on new activities.

The DNP Group will contribute to the creation of an intellectually active, rich, and 21st century society with emergent evolution.

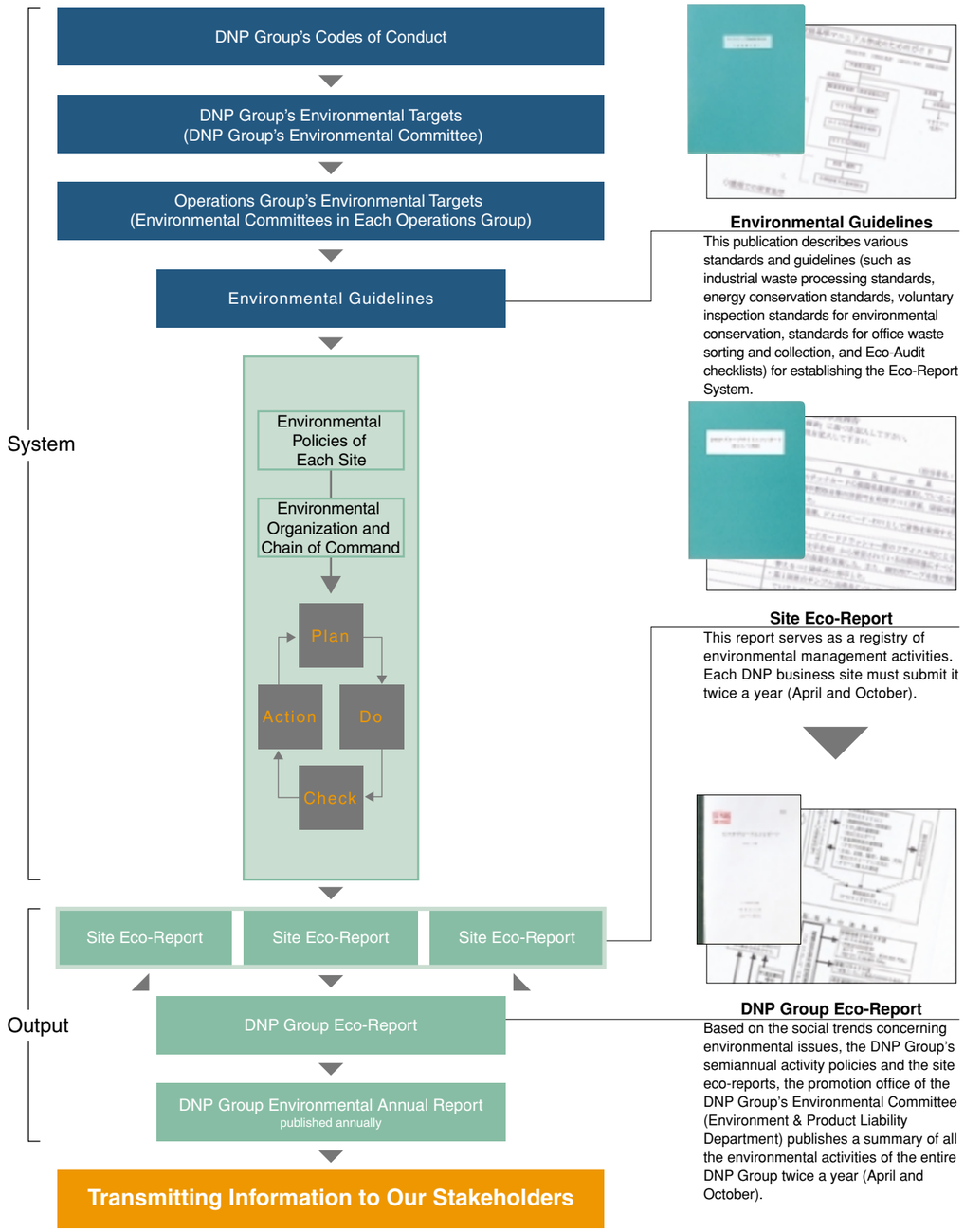
As a part of our vision for the 21st century we advocate the aforementioned management concept. Moreover, in association with environmental issues, which have become more complex over the years, we are doing our best to supply environmentally-conscious products that are based on printing technologies we nurtured over the years and the combined technologies of the DNP Group. We also strive to reduce the environmental impact during the manufacturing process.
As a corporate citizen, our goal is to build good relations with the local community. We aim to realize the emergence of a recycling-oriented society. We hope to be a beneficial partner which plays an active role in the daily lives of the community.

Eco-Report System: Supporting Environmental Management

The Eco-Report System was developed to ensure that the DNP Group achieves its environmental targets. It is a proprietary practical environmental management system and the foundation of the Group's environmental management activities. The DNP Group's environmental management system is a combination of the Eco-Report System and the ISO 14001, and takes into consideration the special characteristics of each business area. We promote such activities throughout the entire company on a continual basis.

Shin Nihon & Co. Shin Nihon & Co. checks to ensure that the assertions and content of this report, and the content and matters of fact are consistent with one another.

The Eco-Report System



Environmental Guidelines
This publication describes various standards and guidelines (such as industrial waste processing standards, energy conservation standards, voluntary inspection standards for environmental conservation, standards for office waste sorting and collection, and Eco-Audit checklists) for establishing the Eco-Report System.

Site Eco-Report
This report serves as a registry of environmental management activities. Each DNP business site must submit it twice a year (April and October).

DNP Group Eco-Report
Based on the social trends concerning environmental issues, the DNP Group's semiannual activity policies and the site eco-reports, the promotion office of the DNP Group's Environmental Committee (Environment & Product Liability Department) publishes a summary of all the environmental activities of the entire DNP Group twice a year (April and October).

DNP Group's Environmental Management System

[Environmental Policies and Targets]

The DNP Group's environmental policies and targets are decided by the DNP Group's Environmental Committee at its head office and reviewed on a regular basis in light of global and customer trends, and the status of companywide activities.

The policies and targets specified herein are widely communicated throughout the company from the head office's promotion office to the environmental committee and promotion office in each operations. The environmental committee of each operations then establishes its own policies and targets based on those passed down from the head office and in consideration of business trends. It then carries out specific activities based on each division's policies and targets.

[Implementing Activities at the Site]

When implementing specific activities, each site conducts environmental management activities as stipulated in the DNP Group's environmental guidelines. Activities are recorded monthly in a site eco-report. On a six month basis, results are assessed and targets are set for the next six month period. In addition, site activities are audited once a year to ascertain if they comply with legal regulations and to see the achievement of targets for the overall Group. This is done to ensure the improvement of environmental management activities.

[Flow for the Disclosure of Environmental Information]

The head office's promotion office publishes DNP Group Eco-Report covering companywide activities twice a year, based on changes in social environmental trends and the site eco-reports from each operations. This is the Group's white paper on environmental activities. Following publication of the report, management goes out to each site to resolve problems at a particular site or the positioning of each problem within the Group for the purpose of mutually understanding environmental information and pinpointing important issues that exist among operations. The paper also supports the sharing of information and ascertaining future key topics. Furthermore, once a year, this DNP Group Environmental Report is published to inform of our environmental management activities over the past year.

[Eco-Report System]

The DNP Group uses three tools, its environmental guidelines, site eco-reports and the DNP Group Eco-Report. Once every six months PDCA (Plan→Do→Check→Act) practices are carried out. This helps each site become more independent in conducting management and controlling environmentally-conscious procedures and aiming toward the achievement of autonomous, environmentally-conscious plants.

[Establishing a Company Which Practices Environmental Management]

In 1972 the Environmental Department was established to start full-fledged environmental management activities. In 1993, we set up a proprietary environmental management system known as the Eco-Report System. In the beginning, the system covers 23 major sites nationwide. Today the system has been expanded and encompassed 55 sites including sales and planning divisions, not just manufacturing plants. Over the course of the years since its initial implementation, we have worked continually to improve management methods. We will continue to carry out this system. Furthermore, we plan to expand the system to meet the needs of the changing times. We aim to keep enhancing the level of our environmental management system.

We intend to expand the themes we deal with. Our issues have mainly focused on our plants but we plan to take on issues such as the development and sale of environmentally conscious products and green purchasing. Our goal is to be evaluated as a company which practices environmental management and contributes to developing a recycling-oriented society.

DNP Group Eco-Report

Expanding the Introducing of ISO 14001

Target

Acquire ISO 14001 certifications for 30 sites by March 2006.

Results

The DNP Group promotes its companywide environmental management activities under the framework of its proprietary environmental management system, the Eco-Report System. Based on the requests of our clients, DNP is working to acquire ISO 14001 for those sites which required certification the most.
In November 1997, we were the first in the printing industry to acquire ISO 14001 certification by the Information Media Supplies Operations, the Okayama Plant. By March 2002, 11 sites had been certified.

Status of Current ISO 14001 Certification

Tien Wah Press (Pte.) Ltd. of Singapore, our overseas printing site, is set for certification in May 2002. Other facilities to be scheduled to be certified are the Chikugo Plant, Kyushu Dai Nippon Printing in June, the Kyoto Plant, the Semiconductor Components Operations in July, and the Sayama Plant, the Information Media Supplies Operations by the end of September.

To achieve our target, 13 other sites are working to build new management systems to obtain certification.

ISO 14001 Certification
(12 systems, 14 sites as of the end of August 2002)

Site	Date of Acquisition	Surveying Organization
Okayama Plant, Information Media Supplies Operations	Nov. 1997	JIA*2
Mihara Plant, Display Components Operations	Jul. 1998	DNV*3
DNP Facility Service Co., Ltd.*1	Apr. 2000	JICQA*4
Okayama Plant, Decorative Materials Operations	Jul. 2000	JIA
TOKAI DAI NIPPON PRINTING CO., LTD.	May 2001	JIA
Sayama Plant, Dai Nippon Printing Technopack Co., Ltd.	Dec. 2001	DNV
Kobe Plant, Decorative Materials Operations	Jan. 2002	JIA
Tokyo Plant, The Inctec Inc.	Jan. 2002	JCQA*5
Kansai Plant, The Inctec Inc.	Jan. 2002	JCQA
Utsunomiya Plant, The Inctec Inc.	Jan. 2002	JCQA
Ushiku Plant, Business Form Operations	Mar. 2002	DNV
Tien Wah Press (Pte.) Ltd.	May 2002	PSB*6
Chikugo Plant, Kyushu Dai Nippon Printing Co., Ltd.	Jun. 2002	DNV
Kyoto Plant, Semiconductor Components Operations	Jul. 2002	DNV

*1 Aside from ISO 14001, also acquired certification for its comprehensive management system covering quality, environment, health & safety and food sanitation
*2 Japan Gas Appliances Inspection Association, QA Center
*3 Det Norske Veritas (Norway)
*4 JIC Quality Assurance Ltd.
*5 Japan Chemical Quality Assurance Ltd.
*6 PSB Certification Pte., Ltd. (Singapore)

The Inctec Inc.

Tien Wah Press (Pte.) Ltd.

Groupwide Environmental Management System

The DNP Group's environmental management structure consists of the DNP Group's Environmental Committee which supervises the entire group, and the operations group environmental committees at each of its business areas. Each committee has its own promotion office.

Directors in charge of each environment-related department at the head office are members of the DNP Group's Environmental Committee. This organ decides on an overall direction for the Group by taking into consideration social trend and the conditions of operations at each business area. Deliberation and decisions on groupwide environmental policies, targets and plans are made. The committee's decisions are then passed on by the head office's promotion office to the environmental committee in each operations group. Activities are then carried out based on the special characteristics of each group.

In an effort to achieve group targets, each environmental committee in each operations group works to expand its development and sales of environmentally conscious products, reduce environmental impact at its manufacturing divisions (reduce industrial waste, prevent global warming, environmental conservation, and separation and collection of waste at the office), and maintain legal compliance. The Eco-Report System is the base for each site's activities and is carried out at 55 domestic sites. Once every six months the activities of each site are assessed and reviewed.

DNP Group's Environmental Management Structure

(as of March 31, 2002: figures count personnel holding two positions)

President

The DNP Group's Environmental Committee — 11
- Chairman: Managing Director of the Technical Division and the Environment & Product Liability Department
- Members: Directors of the basic operations in the head office
- 1 Deliberation and decision on DNP Group's environmental policies, targets and plans
- 2 Approval of policies, targets and plans for each environmental committee in each operations group
- 3 Check and follow-up of plans and achievement of targets for each environmental committee in each operations group
- 4 Committee meets once every three months

Promotion Office — 36
- Manager: Manager of Environment & Product Liability Department
- Members: Managers of the basic operations in the head office, members of the Environment & Product Liability Department, and members of the Technical Division
- 1 Proposes DNP Group's environmental policies, targets and plans and reports them to the committee
- 2 Reports the policies, targets and plans decided upon by the DNP Group's Environmental Committee to each environmental committee in each operations group and does a progress check and supports activities
- 3 Reports on the activities (achievements, plans in progress) of each environmental committee in each operations group to the DNP Group's Environmental Committee

Environmental Committee in Each Operations Group — 250
- 27 Operations Group Environmental Committees
- Chairman: Operations managers
- Members: Department managers in operations; Presidents and department managers of manufacturing affiliates
- 1 Deliberation and decisions on environmental policies, targets and plans for the operations group
- 2 Check and follow-up of plans and achievement of targets for each environmental committee in each operations group
- 3 Regular committee meetings

Promotion Office — 247
- Manager: Full-time or others
- Members: Department managers in operations
- 1 Proposes operations group's environmental policies, targets and plans and reports them to the committee
- 2 Reports the policies, targets and plans decided upon by each environmental committee in each operations group to all sites and does a progress check and supports activities
- 3 Reports on the activities (achievements, plans in progress) of all sites to the committee

765
- Technical and Manufacturing Group
  - Environmentally Conscious Products Development Group
  - Environmental Conservation and PRTR Group
  - Industrial Waste Reduction Group
  - Energy Conservation Group
- Regional Measures Group
- Office and Work Environment Group

55 sites
- Each Site of the Operations Group
- Each Site of the Operations Group
- Each Site of the Operations Group
- Each Site of the Operations Group

Achievements and Assessment of Environmental Conservation Activities

The DNP Group established the environmental targets for our business activities based on our environmental policies in March 2001. We have had successful results steadily since then. The followings are the targets and results of FY 2001.

◎: Largely achieved ○: Achieved or improved steadily ×: Unattained

Items	Targets	FY 2001 Results	Assessment	Reference Pages
Development and Sales of Environmentally Conscious Products Increase sales of environmentally conscious products	Increase sales by 10% on an annual basis	Increased by 20% (¥75.7 billion in FY 2001, ¥63.0 billion in FY 2000)	◎	38 - 44
PRTR Reduce the release and transfer of chemicals specified as class-1 under the PRTR Law	Reduce release and transfer by 50% by March 2006 from FY 2000 levels	Reduced by 29.1% (amount released and transferred: 7,515 t in FY 2001, 10,608 t in FY 2000)	◎	27
Prevention of Global Warming Reduce greenhouse gas emissions	Maintain greenhouse gas emissions by March 2011 at FY 2000 levels	Reduced by 0.4% (amount released: 834,000 t in FY 2001, 837,000 t in FY 2000)	○	32, 33
Reduce total energy consumption	Maintain total energy consumption by March 2011 at FY 2000 levels	Reduced by 0.8% (total consumed: 18,702 TJ in FY 2001, 18,845 TJ in FY 2000)	○	32, 33
Reduce energy consumption per production	Reduce energy consumption per production by 15% by March 2011 from FY 1990 levels	Reduced by 0.6% from FY 1990 levels Reduced by 4.3% from FY 2000 levels	○	32, 33
Reduce CO_2 emissions per production	Reduce CO_2 emissions per production by 20% by March 2011 from FY 1990 levels	Reduced by 3.9% from FY 1990 levels Reduced by 3.7% from FY 2000 levels	○	32, 33
Reduction of Industrial Waste Reduce waste emissions per production	Reduce by 20% by March 2006 from FY 2000 levels	Reduced by 24.3% (accomplished 5 years earlier than planned)	◎	29
Reduce total unusable materials generated	Reduce by 10% by March 2006 from FY 2000 levels	Reduced by 19.6% (accomplished 5 years earlier than planned)	◎	29
Achieve zero emissions	Achieve at 20 sites by March 2006	Achieved at 6 sites Under 1% of the rate of final waste disposal at 17 sites	○	29
Reduce the rate of unusable materials generated (total unusable materials generated per total materials input)	Reduce by 20% by March 2006 from FY 2000 levels	15.4% in FY 2001. A 13.0% reduction from FY 2000 levels	○	29
Boost the rate of recycling (amount of materials recycled per total unusable materials generated)	Boost by 20% by March 2006 from FY 2000 levels	74.2% in FY 2001. A 2.3% improvement from FY 2000 levels (71.9% in FY 2000)	○	29
Environmental Conservation Reduce air pollutants	Maintain maximum density of pollutants listed in regulations on emissions into the air under 70% of regulatory standards	Accomplished at 33 plants (79%) subject to regulations	○	34
Reduce water pollutants	Maintain maximum density of pollutants listed in regulations on wastewater under 70% of regulatory standards	Accomplished at 11 plants (26%) subject to regulations; Analysis of factors causing changes in wastewater elements	×	34
Control odor generation	Maintain the maximum odor levels at site boundaries under 70% of regulatory standards	Accomplished at 23 plants (77%) subject to regulations	○	34
Control noise generation	Maintain the maximum noise levels at site boundaries under 95% of regulatory standards	Accomplished at 4 plants (10%) subject to regulations; Distinction from background noise	×	34
Control vibration generation	Maintain the maximum vibration levels at site boundaries under 95% of regulatory standards	Accomplished at 21 plants (100%) subject to regulations	◎	34
Office Environment Improve the rate of used paper separated and collected	Rate of used paper separated and collected should exceed 65% compared with municipal waste	25 sites now carrying out the separation and collection of used paper, nearly twice as any sites as FY 2000. Amount of used paper collected rose 5.8%. The collection rate was 60.7%	×	30
Green Purchasing Compared with the total raw materials purchased, increase the rate of environmentally conscious products purchased	Compared with the total raw materials purchased, increase the rate of products that meet our standards purchased by 2.5% year-on-year	Increased by 5.0%	◎	37
Compared with the total general supplies (including office supplies and fixtures), increase the rate of products bearing environmental labeling, such as the Eco-Mark, etc., purchased	Compared with the total general supplies, increase the rate of products bearing environmental labeling purchased by 3.0% year-on-year	Increased by 3.8%	○	37
Reduction of Environmental Impact during Transport Reduce CO_2 emissions per transport (tons kilometer)	Reduce CO_2 emissions per transport by 5% by March 2011 from FY 2000 levels	Reduced by 17.0%	◎	45
Reduce fuel consumption during transport per sales	Reduce fuel consumption per sales by 20% by March 2011 from FY 2000 levels	Reduced by 6.9%	○	45
Environmental Management System Promote acquiring ISO 14001 certifications	Acquire ISO 14001 certifications at 15 sites by March 2002 and at 30 sites by March 2006	7 sites newly certified, for a total of 11 certified sites	×	16
Improve the level of the Eco-Report System	Implement eco-audits at all sites	51 sites participated in the Eco-Report System	○	52, 53

* The unit of production using in calculating unit per volume represents the volume of business activity. We use the total added value for production.

Environmental Education

To heighten our employee's awareness of environmental issues, we implement environmental education through all levels of our group, for each job position and for each specific function.

Shin Nihon & Co. Shin Nihon & Co. checks to ensure that the assertions and content of this report, and the content and matters of fact are consistent with one another.

Environmental Education

We implement environmental education through all levels of our group, for each job position and for each specific function. We cover areas such as domestic and overseas trends on global environmental issues, environmental know-how, contents of laws, and the DNP Group's environmental conservation activities.

First we conduct training for new employees, giving instruction on basic environmental issues and the DNP Group's activities. For technicians, in their second year at DNP, we hold a class on basic knowledge, environmental impact and environmental facilities. Furthermore, we provide training for technicians so that they can comprehend and understand environmental laws.

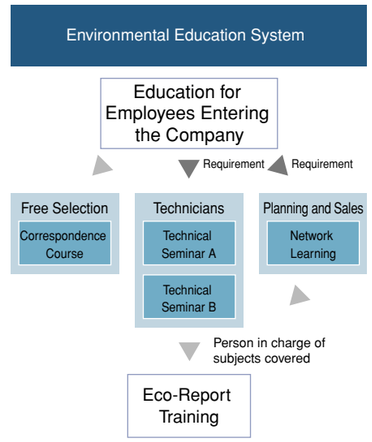
For those employees working in the sales or planning division, we offer environmental training over a computer network once they have mastered the basic tasks associated with their jobs. This education aids employees in getting a grasp of basic knowledge on environmental issues and to understand the relationship with business. It is also vital as it helps employees to actively make proposals to customers and enables them to create new business opportunities.

We also conduct practical training course for staff in charge of the environmental committee at each site once every six months. Based on the newest edition of the DNP Group Eco-Report, the training program contains discussion on issues related to domestic and overseas trends connected with global environmental issues, revisions to laws, environmental goals achieved by the DNP Group in the previous fiscal year, current year targets, and issues pertaining to the employee's site.

We also offer a correspondence course for all employees.

Outline of Environmental Education Programs

Training	Course	Year Began	Eligibility	When Course Is Taken	No. of People Attended
Education for employees entering the company	Environmental activity overall (required)	1994	Each year for those hired in April and during other times of the year	Upon entering the company	2,088
Technical Seminar A	How DNP deals with the environment (required)	1997	2nd year technicians	Year the employee becomes qualified to take the course	1,639
Technical Seminar B	Environment (optional)	1999	Technicians	Irregular	104
Network Learning	Environmental issues and business	2000	Employees with more than 2 years experience in the sales and planning divisions (required)	Employees determines when they take the course	4,317
Correspon-dence Course	(optional)	Select a course each year	DNP Group all employees	Semiannually	—
Eco-Report Training	Environmental targets for current term	1993	Site members of the operations group environmental committee	Semiannually Publication of Eco-Report	—



Environmental Education in FY 2001

During the year, we held 3 classes for new employees (423 employees attended in all), and 3 Technical Seminar A for technicians (239 employees in all).

We conducted the Network Learning (environmental issues and business) for employees in our sales and planning divisions. 1,122 employees took a final exam over the network and completed the course.

Eco-Report training covered the topics of revisions to the Waste Management and Public Cleaning Law and focal points of the PRTR Law. The class was held twice, once in May and then again in October. 803 employees attended.

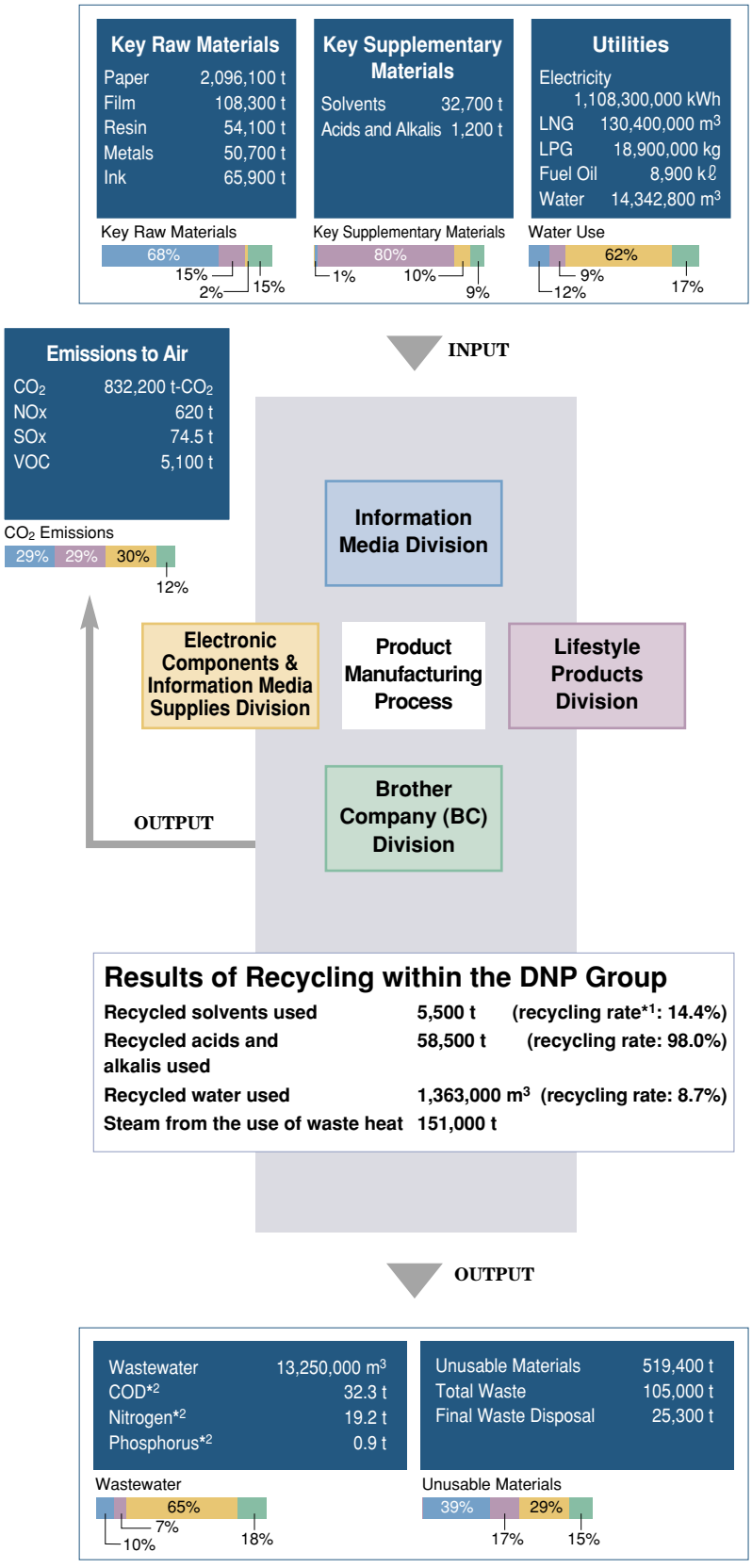
79 workers took our correspondence course. This year the classes offered were a seminar on environmental consciousness, understanding the ISO 14001, and LCA and environmental labeling.

In FY 2001, 2,666 completed courses in environmental education.

Network Learning

Environmental Performance

Environmental Impact of the DNP Group (material flow)



The DNP Group manufactures various products we use in our daily lives. The key raw materials used are paper, film, resins, metals such as iron and aluminum, and inks.

Looking at the characteristics of each division, we find that the Information Media Division used a large amount of key raw materials and emits a vast volume of unusable materials. The Lifestyle Products Division uses many key supplementary materials. The Electronic Components and Information Media Supplies Division uses a large amount of water and emits a significant volume of wastewater. The correlation with the scale of operations (production output)*3, in relation to raw materials, is 15.5 (t/million yen) at the Information Media Division, 6.7 at the Lifestyle Products Division, and 0.7 at the Electronic Components and Information Media Supplies Division. It was 4.0 at the BC Division. The lowest is the Electronic Components and Information Media Supplies Division. In contrast to this, the relation with the unusable materials is 1.9, 1.7, 2.5 and 0.8, respectively. In this case the Information Media and the BC divisions are lower. In terms of water use, the respective figures are 16.9, 22.8, 145.2 and 27.7. Wastewater showed similar trends. One notable trait was that impact at the Information Media Division was relatively low. Approximately half of the water used by the BC Division is used by Hokkaido Coca-Cola Bottling.

Internally, the DNP Group uses a high level of recycled acids and alkalis. However in the case of solvents, the use of recycled solvents is low as it is put through an incineration device to remove odor. Sites related to electronics components are active in recycling water. The Group's overall recycling rate was 8.7%. This needs to be improved. Waste heat is recovered from incinerators and deodorization devices and turned into steam. It is then used as a heat source for dryers.

*1 The solvents contained in ink are also subject to recycling. But the amount content in each ink varies. For this reason, we calculate the recycling rate by excluding the amount of solvent from the ink.

*2 COD, nitrogen and phosphorus are subject to wastewater channels for which the Water Pollution Control Law applies.

*3 The production output figures used here is the added value of the DNP Group minus the added value of the Sales Management Division at Dai Nippon Printing Co., Ltd.

Environmental Impact by Division

The followings are the special characteristics of the environmental impacts of the Information Media Division (books and magazines, commercial printing, business forms), the Lifestyle Products Division (packaging, decorative materials), and the Electronic Components and Information Media Supplies Division (electronic components, information media supplies).

Information Media Division

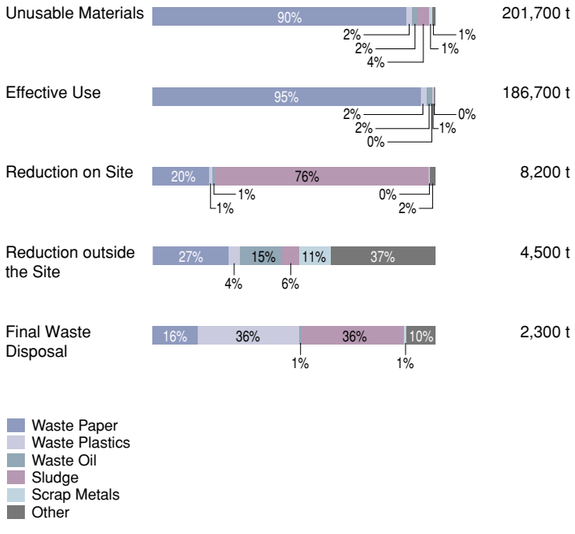
The distinctiveness of this division is that the key raw material it uses is paper with the recycling rate of unusable materials is 93.4%. When just calculating the recycling rate for paper it rises to 98.2%.

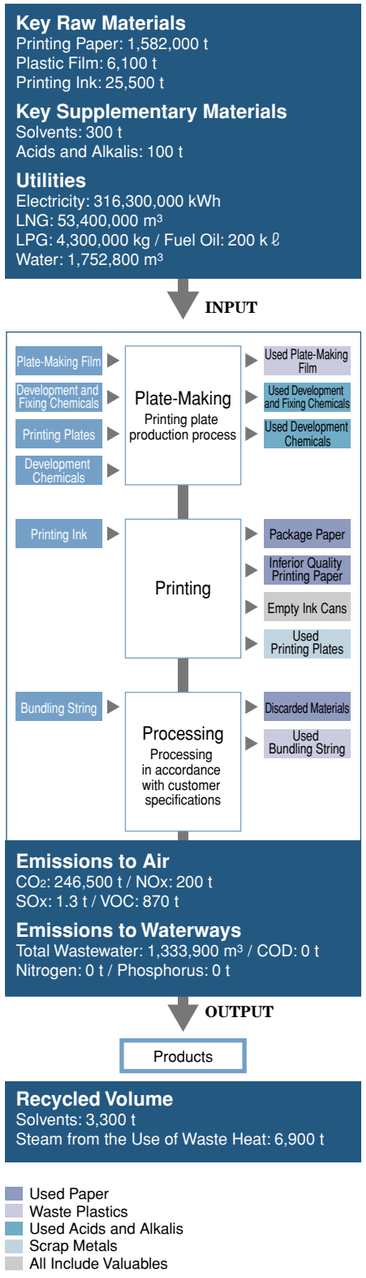
In gravure printing the only solvent used is toluene. Because it is easy to recycle, the division boasts a high recycling rate. The waste heat from the incinerator at the Warabi Plant which handles the production of business forms is recovered and reused.

All of our wastewater is disposed of through public sewage systems. Because secondary treatment is conducted, the wastewater we emit does not release CODs into rivers or nitrogen or phosphorus into water bodies.

During the plate-making process we use special facilities that are designated under the Water Pollution Control Law and Sewage Water Law. These includes a facility of automatic development and washing of film to develop and fix photographic film for plate making, a facility of automatic development and washing of printing plates with light-sensitive film to “burn” a design onto the plate for offset printing, a facility for surface processing by acids and alkalis onto a plate in gravure printing, and an electroplating facility to coat the plate in copper or chrome for use in gravure printing. The machine used during the printing process is designated under the Noise Control Law and Vibration Regulation Law as a special facility. There are no special facilities designated by environmental laws used during processing. Other facilities used by the division include a compression machine, ventilator and boiler.

[Treatment of Unusable Materials]





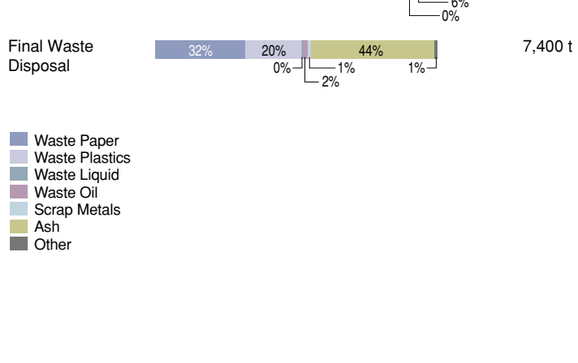
Lifestyle Products Division

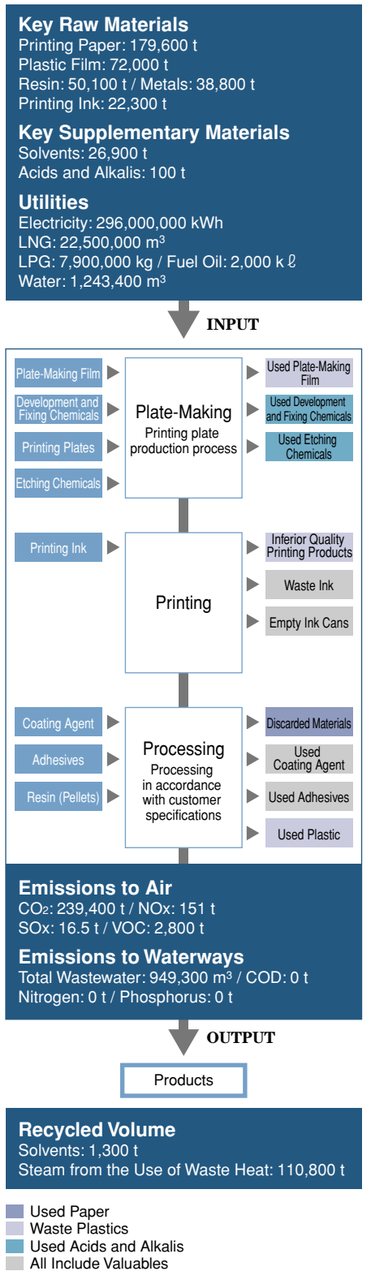
This division handles gravure printing, coating and laminating in the manufacturing process. These processes use inks that contain a variety of solvents. A coating film is created by heating and drying these solvents. Because of this, VOC is an issue. During the drying process, the solvents emit an odor. To prevent this, a deodorization device is used. The waste heat from this is turned into steam. Along with the waste heat recovered from the incinerator, this division recovers a large amount of heat. In addition, to prevent the emission of odors, we are converting to the use of water-soluble materials for our ink.

The key raw materials used are paper, various plastic films, resins, and metals (aluminum). Because the unusable materials emitted by this division are complex, they are difficult to recycle. Sites related to this division use waste heat effectively by recovering heat released during the incineration process, and consigning an outside facility to turn it into solid fuel.

The environmental facilities used during the manufacturing process at this division are the same as at the Information Media Division.

[Treatment of Unusable Materials]





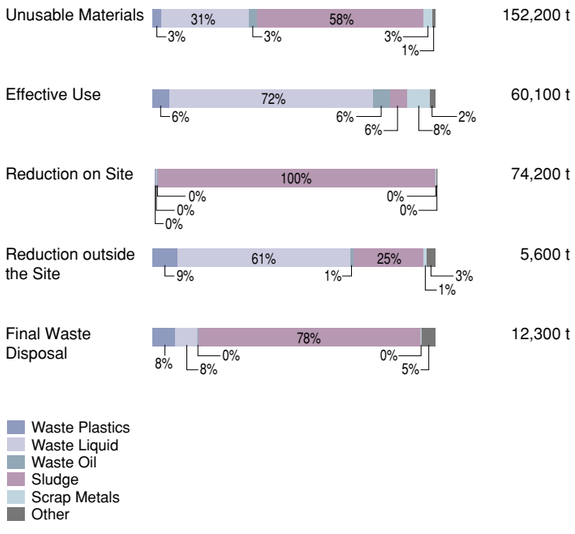
Electronic Components and Information Media Supplies Division

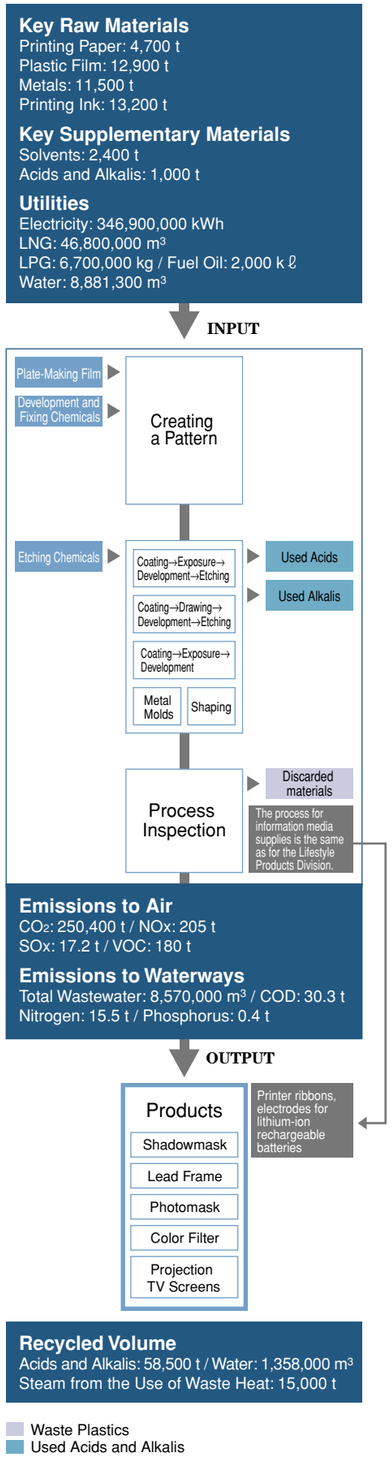
The environmental impact from information media supplies is the same as at the Lifestyle Products Division. Waste heat from the deodorization device used during the processing of information media supplies is recovered and recycled.

This division uses photographic plate-making technology. Etching is conducted during the shadowmask and lead frame manufacturing process. Because of this a large amount of acid and water is used. This is one characteristic of the division. The used acid is recycled on site. In addition, recycling is also carried out by a third-party to ensure effective use.

The division's recycling rate is 39.5%. This is low compared to other divisions. The division reduces volume through the dewatering of sludge. Because of this, the rate of volume reduction is 48.8%. This is about the same level as the other divisions.

[Treatment of Unusable Materials]





Reducing Environmental Pollutants

The DNP Group is striving to reduce the release of environmental pollutants.

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To prevent the pollution of and promote the conservation of the global environment, the DNP Group tracks the release of environmental pollutants and implements measures to reduce emissions of such substances. We are working to reduce substances which have an impact on the air. This includes hazardous air pollutants, ozone depleting substances, sulfur oxide (SOx), nitrogen oxide (NOx), and volatile organic compounds (VOCs). We are also striving to reduce emissions of chemical oxygen demands (CODs), nitrogens and phosphorus, all of which have an impact on our waterways. Furthermore, we are decreasing the release of PRTR class-1 designated chemicals into the environment and reduce the transfer of such substances through the sewage systems or as waste.

Impact on the Air

[Hazardous Air Pollutants]

Of the substances prioritized for reduction under the Air Pollution Control Law, we have already phased out trichloroethylene and tetrachloroethylene*1. Currently we still use dichloromethane for washing printing plates. We are working to reduce the use of this substance and have introduced equipment such as a cooling and coagulation device, and a washing device that uses water. These efforts enabled us to reduce emissions into the air. We are constantly looking for substitutes for these hazardous substances. In this fashion, we are continuing to make improvements and aiming for the complete phase out of hazardous air pollutants.

*1 Trichloroethylene was phased out in 1996 and tetrachloroethylene was phased out in 1997.

We also maintain 19 incinerators both small and large in size. We are halting operations of small and medium-size incinerators as it is difficult to manage fuel consumption. This will in turn allow us to reduce emissions of dioxins into the air.

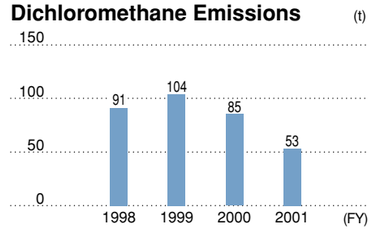
[Ozone Depleting Substances]

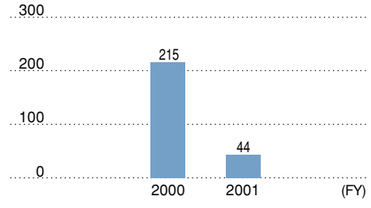
We use CFC-11*2 and CFC-12 as a coolant. Unfortunately both of these substances deplete the ozone. There are currently 19 air conditioning related systems. However, we are working to decrease the use of these substances by switching over to a gas absorption system for freezers.

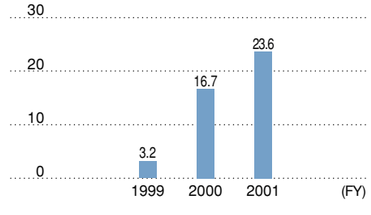
Also, during our manufacturing process we use HCFC-141b*3, which is an alternative CFC. Thus far, our aim has been to reduce chlorinous organic solvents found to be hazardous and substances which deplete the ozone. However, to reduce the use of these substances we have increased the use of HCFC-141b. This substance has relatively little negative impact on the ozone but its use must be curtailed, as it is the cause of global warming. As it is a PRTR-designated substance, we are striving to reduce its use.

We abolished the use of 1,1,1-trichloroethane in 1994. The substance is one of the manufacturing substances being phased out under the Montreal Protocol.

*2 Chlorofluorocarbon
*3 Hydrochlorofluorocarbon







[Sulfur Oxides (SOx) and Nitrogen Oxides (NOx)]

SOx and NOx are emitted owing to the consumption of electric power and fuel during the manufacturing process. We are making various efforts to reduce emissions, such as shifting from fuel oil to gas, improvements to facilities and operating methods. In FY 2001, we introduced a large-scale cogeneration system. We converted our boiler to run on gas instead of fuel oil to help reduce the purchased electricity and the consumption of fuel oils. Owing to our efforts, we reduced SOx and NOx emissions.

[Volatile Organic Compounds (VOCs)]

During the printing process, the ink solvents, adhesives and washing solvents we use contain toluene and xylene. These solvents evaporate, as VOCs they have an impact on the air.

To prevent foul odors, we collect and reuse VOCs by decomposing them using an incinerator or through the absorption process. To further reduce emissions into the air, we are switching to solvents with a lower environmental impact and water-based materials.

Impact on Waterways

[Chemical Oxygen Demand (COD)]

There are various types of cooling and washing process that take place during printing. This includes the development and washing facilities used during the creation of the original printing plate and plating facilities. We effectively use water resources by recycling the wastewater released by these processes. In addition, computerized plate-making makes the process filmless, guaranteeing that no wastewater is released into the environment.

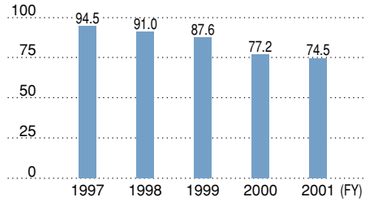
Wastewater that runs into public waterways is treated to ensure that it is hazardless and to reduce the pollution level of the wastewater. However, in FY 2001, though in compliance with regulatory standards, the amount of CODs increased overall owing to an increase in production output.

[Nitrogen and Phosphorus]

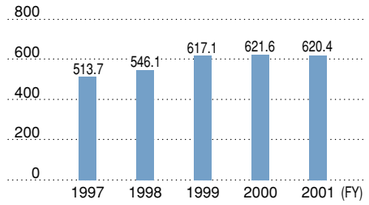
Eutrophication of closed-off ocean area and lakes is one issue dealing with degradation of water quality. This is caused by nitrogen and phosphorus found in wastewater from households and plants. Eutrophication is where there is a sudden abnormal increase in plankton.

These substances are found in the wastewater released from our plants and business sites. We treat this wastewater in purification tanks or at wastewater treatment equipment. The total amount of nitrogen in our wastewater has declined in comparison to FY 2000 levels.

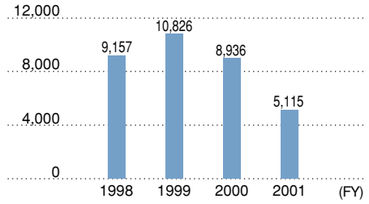
SOx Emissions (t)



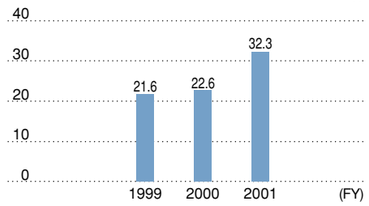
NOx Emissions (t)



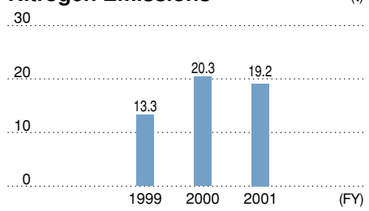
VOC Emissions (t)



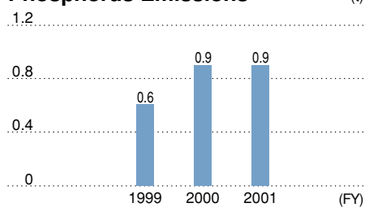
COD Emissions (t)



Nitrogen Emissions (t)



Phosphorus Emissions (t)



Impact of Chemicals on the Environment

The DNP Group, prior to the establishment of the Law to Promote Improved Tracking and Management of Emissions Volumes for Designated Chemical Substances Released into the Environment (PRTR Law*1), established its own proprietary system (DN-PRTR) from 1998. We set targets for reducing emissions into the environment, such as into the air or waterways, and transfer volume as waste.

Target for PRTR

By March 2006, reduce the release and transfer volume of chemicals specified as class-1 under the PRTR Law by 50% from FY 2000 levels.

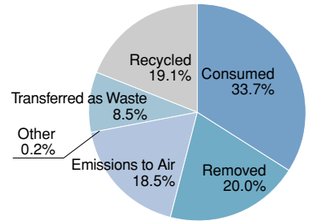
*1 PRTR: Pollutant Release and Transfer Register

[Reducing the Release and Transfer of PRTR Class-1 Designated Substances]

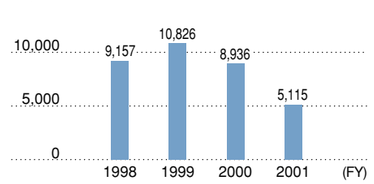
In FY 2001, we handled 27,666 t (28 substances, 35 plants) of chemicals that are subject to reporting. Of which 18% was released into the air or waterways. The majority of it was emitted into the air (5,115 t/year). (9.6 t was released into public waterways but no substances were emitted into the ground.) Solvents such as toluene and xylene used during the printing process were the main substances emitted into the air. Of this, toluene consisted of 90% of the substances released into the air.

We aim to lower our toluene emissions to under 500 t/year by March 2005. To achieve this target, we are changing the solvents we use, collecting toluene from flue gas, and removing it by a treatment system.

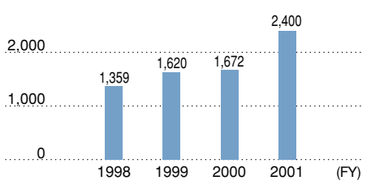
Release and Transfer



Emissions to Air (t)



Transferred Volume (t)



PRTR Chemicals

Unit: t (dioxins: mg-TEQ)

Substances	Handled	Emissions to Air	Emissions to Waterways	Transferred via the Sewage System	Transferred as Waste	Recycled	Consumed	Removed
monoethanolamine (2-aminoethanol)	16.4	0	0	9.7	6.7	0	0	0
isophorone diisocyanate	23.7	0	0	0	0	0	23.7	0
ethylbenzene	285.4	31.1	0	0	8.5	94.8	93.0	58.0
ethylene glycol monoethyl ether	30.0	14.7	0	0	3.5	0	7.6	4.1
ethylene glycol monomethyl ether	559.1	284.7	0	0	53.0	0	192.5	28.8
ε-caprolactam	5.1	0	0	0	0.1	0	5.0	0
xylene	531.5	65.3	0	0	19.2	156.0	104.5	186.5
chromium and chromium (Ⅲ) compounds	91.2	0	0	0	51.1	19.0	21.2	0
hexavalent chromium	53.9	0	0	0	10.4	0	11.6	31.9
cobalt and its compounds	148.6	0	0	0	1.7	41.3	105.6	0
2-ethoxyethyl acetate	25.6	13.1	0	0	0.2	0	12.4	0
HCFC-141b	28.7	23.6	0	0	5.0	0	0	0
dichloromethane	57.3	52.9	0	0	4.4	0	0	0
dioxins	—	44.5	0	0	3,044.3	0	0	0
copper salts (water-soluble)	295.6	0	0	0.1	146.0	82.7	41.9	24.9
1,3,5-trimethylbenzene	5.2	0.3	0	0	0	0	0	4.9
toluene	22,239.8	4,628.9	0	0	1,941.6	3,383.0	7,106.0	5,180.4
lead and its compounds	158.3	0	0	0	0	158.3	0	0
nickel	2,238.7	0	0	0	0	751.3	1,487.4	0
nickel compounds	684.5	0	0	0	98.2	586.1	0.2	0
hydrazine	16.0	0	9.6	6.4	0	0	0	0
hydroquinone	26.8	0	0	26.8	0	0	0	0
phenol	9.4	0	0	0	0.1	0	9.2	0.1
di-n-butyl phthalate	5.1	0	0	0	0	0	5.1	0
bis (2-ethylhexyl) phthalate	110.8	0.8	0	0	4.3	0	94.2	11.5
trimellitic anhydride	6.2	0	0	0	0.1	0	6.1	0
poly (oxyethylene) nonylphenyl ether	5.9	0	0	0	0.1	0	5.7	0
manganese and its compounds	7.7	0	0	0	2.7	1.8	3.2	0
Total	27,666.4	5115.3	9.6	43.0	2357.2	5,274.2	9,336.1	5,531.0

Reducing Waste, a Step in Resource Recycling

The DNP Group aims to make effective use of resources and reduce its use of final waste disposal, and is working to reduce waste. In FY 2001, we made great achievements in the reduction of waste emissions per production and unusable materials.

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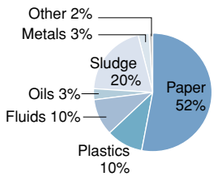
Target for Reduction of Industrial Waste

Aim to achieve the following targets by March 2006.

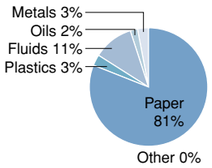
- **Reduce waste emissions per production*1 by 20% from FY 2000 levels.**
- **Reduce total unusable materials generated by 10% from FY 2000 levels.**
- **Achieve zero emissions at 20 sites.**
- **Reduce the rate of unusable materials generated (total unusable materials generated per total materials input) by 20% from FY 2000 levels.**
- **Boost the rate of recycling (amount of materials recycled per total unusable materials generated) by 20% from FY 2000 levels.**

*1 The unit of production using in calculating unit per volume, represents the volume of business activity. We use the total added value for the DNP Group.

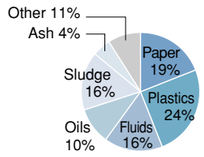
Unusable Materials A



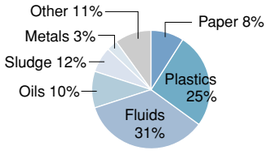
Valuables C



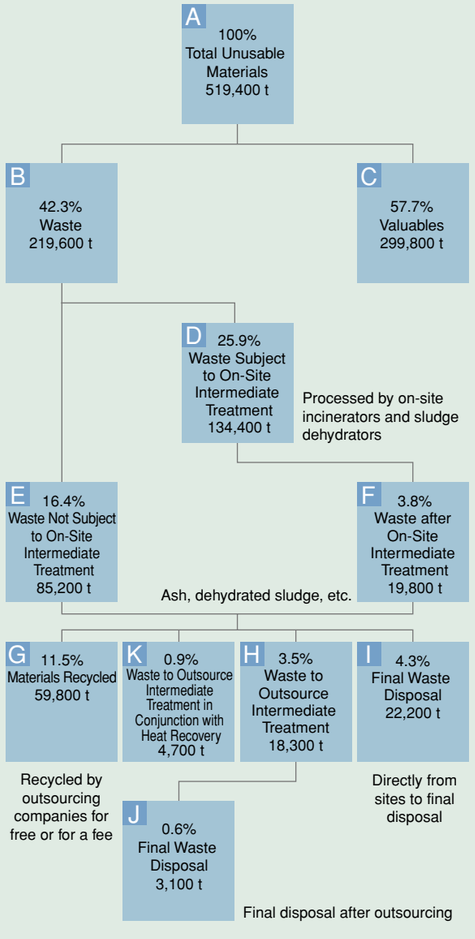
Waste Emissions E+F



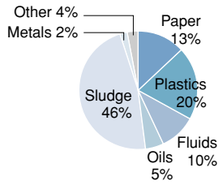
Waste to Outsource Intermediate Treatment H



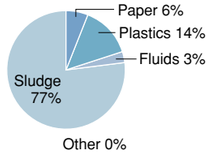
The Current Status of DNP Group's Waste Emissions in FY 2001



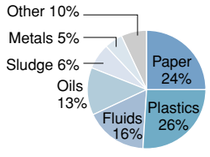
Waste B



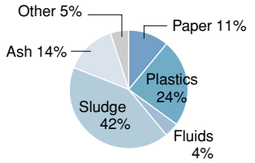
On-Site Intermediate Treatment D



Materials Recycled G+K



Final Waste Disposal I+J



Reducing Emissions and Zero Emissions

In view of the growing constraints on landfill capacity, the DNP Group is working to reduce industrial waste and achieve zero use of final disposal sites, with the ultimate target of realizing the "zero emissions" (zero waste). Zero emissions means that the total of final disposal of waste directly brought in from sites [I] and final disposal of waste that has gone through intermediate treatment [J] equal zero.

As an emergently evolving company actively contributing to the creation of a sustainable, recycling-oriented society, we added new targets to our efforts beginning FY 2001. To further promote the effective use of resources, we aim to reduce unusable materials [A], and lower the rate of unusables [A/amount of materials input]. We also plan to promote the recycling of all unusable materials, by improving our recycling rate [(C+G+K)/A]. The following calculations were used.

Unit per volume of waste emissions = Waste emissions [E+F] per production
Rate of final disposal use (%) = Final waste disposal [I+J] per total unusable materials input [A] X 100
Rate of unusable materials generated (%) = Total unusable materials generated [A] per total key raw materials input X 100

The key raw materials used by the Information Media Division are paper and ink. At the Lifestyle Products Division, the key raw materials used are paper, films, plastics, resins, metals, and ink. At the Electronic Components and Information Media Supplies Division, raw materials are mainly metal and glass boards. At the Electronic Components and Information Media Supplies Division, the unusable materials such as waste acids or alkalis are emitted, which have no relation to the raw materials the division uses. For this reason, when calculating the rate of unusables, only those unusables that are released as a result of the raw materials input are counted.

Recycling rate (%) = Amount recycled [C+G+K] per total unusable materials generated [A] X 100

However, in the case of recovery of waste heat from incinerators, D–F is added to the equation for amount recycled.

[Main Themes of Our Activities]

The followings are the main themes of our activities.

1. Measures to reduce emission at the source (improvements to establish a production system that does not generate unusable materials)
2. Collection and separation of waste, recycling (turning unusable materials into valuables, effectively using waste)
3. Reducing weight and volume of waste (use incinerators and dehydration of sludge)
4. Management methods and education (emissions management, patrol)

Cost Structure Reform

As a part of cost structure reforms outline in our vision for the 21st century, we aim to improve our production yield and shorten leadtimes. At the same time, in strategically important areas, we are conducting focused allocation of management resources through a process of selection and focus. In FY 2001, we reduced the unusable materials by 19.6% from the previous year, for a total of 519,400 t, by focusing productions of shadowmasks at our Mihara Plant and improving productivity at our Decorative Materials Division. We curbed the waste emissions per production by 24.3% from the previous year, to 0.236 (t/million yen). In this way we accomplished our targets for the year. The generation rate of unusable materials was 15.4%, down 13.0% from the previous year.

The Kuki, Akabane, and Gotanda plants of the Ichigaya Publication Printing Operations, the Sayama Plant of Dai Nippon Cup, the Kansai Plant of Dai Nippon Polymer, and Hokkaido Dai Nippon Printing are the 6 sites which have achieved zero emissions and do not conduct the final disposal of unusable materials generated during the manufacturing process. This is 2 sites more than in the previous year. There are 17 sites with a final disposal use rate of under 1%. This is 6 sites more than a year earlier.

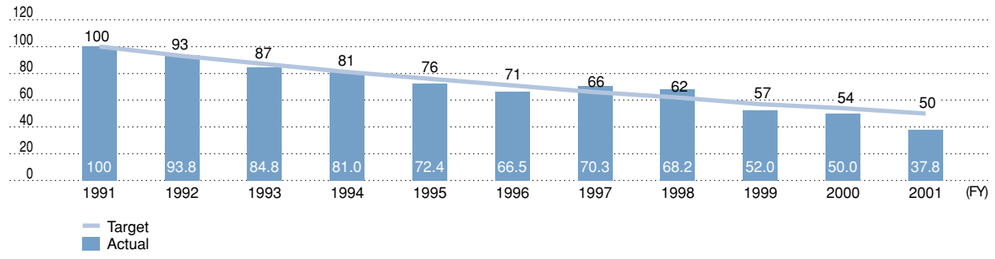
However, in FY 2001, the overall final disposal use rate for the entire Group was 4.9%, only a slight improvement from the 5.2% marked in the previous year. This was due to the integration of production at the Electronic Components and Information Media Supplies Division. Prior to integration sludge was effectively used but upon focusing its production, the sludge was sent to final disposal. This is an issue which we need to deal with.

The recycling rate was 74.2%. Used plastics, sludge and incineration ash were turned into raw materials for cement. Because of this, the recycling rate improved 2.3 points, from the 71.9% recorded a year earlier.

In FY 2002 we revised our recycling rate to 80% by March 2006 to clarify the relationship with achieving zero emissions. We plan to maintain our waste emissions per production and reduction of unusable materials at FY 2002 levels and aim to make effective use of sludge.

Trends in Industrial Waste Emissions per Production

Unit: % (compared with FY 1991 levels)



Activities at the Office, a Step in Resource Recycling

At the DNP Group, used paper from the office division has been separated into 4 categories, wood-free paper, newspaper, magazine and cardboard. The Group set targets for the rate of collecting used paper and tackle resource recycling.

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Target

Rate of collecting used paper: 65% [A/(A+B) X 100]
A: Used paper separated and collected in the office
B: Municipal office waste (excludes cans, bottles and food waste)

Results

In FY 2001, 50 sites were involved in collecting and separating used paper. We were able to monitor the used paper collected and the waste for 25 sties, where there was no waste mixed in from production. The paper collected was 1,015 t. The rate of collection was 60.7%.
The number of sites subject to our calculations was 5 prior to FY 1999, 13 in FY 2000 and 25 in FY 2001. This indicates how we have increased our separation and collection activities. However, the collection rate has fallen since its peak in FY 1999. In FY 2001, we were not able to achieve our target of 65%.
We believe this is due to the fact that sites which have just begun separation and collection of used paper are not yet doing a thorough job. We plan to offer more training and patrol the collection activities of these sites in an attempt to ensure that methodical collection of waste paper is carried out and that used paper is not mixed in and thrown out with other waste.
In addition to the recycling of used paper, we are working to reduce the waste paper. We advocate tasks such as using both sides of paper or opting for email instead of paper for communication and promoting the use of projectors for presentations.

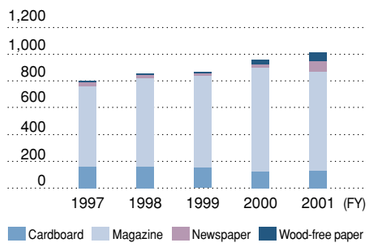
Used Paper Separated and Collected (t)

	1997	1998	1999	2000	2001 (FY)
Cardboard	158	155	147	118	125
Magazine	581	655	682	781	740
Newspaper	48	30	24	22	78
Wood-free paper	13	14	17	39	72
Total volume collected	801	855	870	959	1,015
Total waste emissions	388	382	334	510	657
Total emissions	1,189	1,236	1,204	1,470	1,672

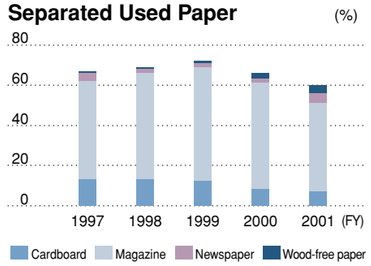
Rate of Used Paper Separated and Collected (%)

	1997	1998	1999	2000	2001 (FY)
Cardboard	13	13	12	8	7
Magazine	49	53	57	53	44
Newspaper	4	2	2	2	5
Wood-free paper	1	1	1	3	4

Collection of Separated Used Paper (t)



Collection Rate of Separated Used Paper (%)



Boxes for the Separation and Collection of Used Paper

Recycling Water, a Step in Resource Recycling

Water is also a limited resource. We are working to reduce use and at the same time striving to recycle.

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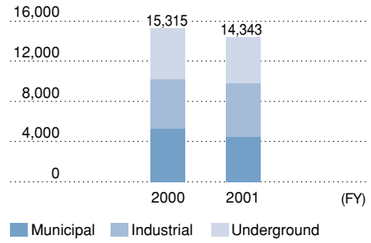
Water Use

During production we use water for washing, cooling, steam, and moisture in offset printing. Each site, depending on its operations, uses one of three types of water, municipal, industrial or underground.

In FY 2001, we reorganized our electronics production sites. These sites thus far accounted for over 60% of the Group's total water use. As a result of this restructuring, we were able to streamline the water use. For the entire Group, water use was reduced during the period by over 900,000 m^3.

Water Type and Use (1,000 m^3)



Recycling of Water at Our Electronics-Related Business

Our electronics production, which focuses on electronic components, uses a significant amount of water to ensure product quality. To ensure the effective use of water, we have long been recycling our water resources.

We conduct two types of recycling. The first is the use of high-quality water at different stages of our electronics-related production division.

The production of electronic components requires a high level of cleanliness. For washing we use pure water. Furthermore, for those components demanding an even stricter level of cleanliness, we use ultra pure water. We create pure and ultra pure water on site.

When we refer to using water at various stages it means that we reuse ultra pure and pure water over and over again, depending on the level of cleanliness required, without purifying it.

The second is reuse of wastewater. We purify and recycle the wastewater from the production process.

In FY 2001, our collection and reuse rate was around 16% on average related to electronics production (amount of water collected and reused/amount of water used). This ratio was 46% at the Otone site which boasts the most developed reuse system.

During the period, the DNP Group's wastewater emissions declined by more than 900,000 m^3 thanks to reduction efforts. From here forward, we aim to rationalize our use of water in production and increase the use of reused water in relation to electronics production.

Kami-Fukuoka Plant's Pure Water Facilities

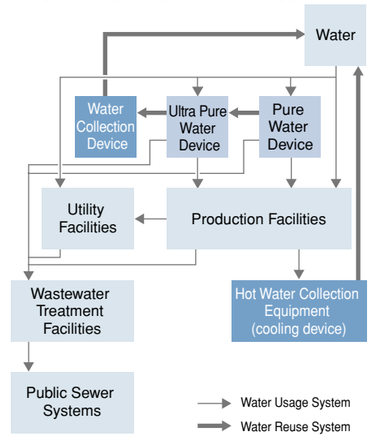
Kami-Fukuoka Plant's Ultra Pure Water Facilities

[Use of Rainwater at Our Office Buildings]

We promote the use of rainwater.

In FY 2001, we used 4,848 m^3 of rainwater at our C&I head office building and DNP Logistics building in Tokyo. On a cumulative basis for both buildings, rainwater accounted for around 31% of toilet water.

Systematic Use of Water at Our Electronics-Related Business



Taking up Measures to Prevent Global Warming

We promote the reduction of greenhouse gases and advocate energy conservation.

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Targets: through FY 2010

1. **Maintain greenhouse gas emissions at FY 2000 levels.**
2. **Maintain energy consumption levels at FY 2000 levels.**
3. **In comparison to FY 1990 levels, reduce energy consumption per production and CO_2 emissions per production by 15% and 20%, respectively.**

Results

1. Compared to FY 2000, our greenhouse gas emissions declined by 0.4%, for a total of around 834,000 t.
2. Compared to FY 2000, energy consumption, converted to the average heat value, dropped 0.8%, to approximately 18,702 TJ.
3. During the period, we reduced energy consumption per production by 0.6%, compared to FY 1990 levels and curtailed CO_2 emission per production by 3.9%.

Greenhouse Gas Emissions

[Reducing Gases]

Of the six types of gases designated under the Kyoto Protocol, we are working to reduce carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O).

Currently the DNP Group's operations do not emit HFC, PFC or SF_6.

[Source of Greenhouse Gases]

Gases are emitted from electric power consumption facilities, heat energy consumption facilities, incinerator and dryers.

[Calculating Greenhouse Gas Emission]

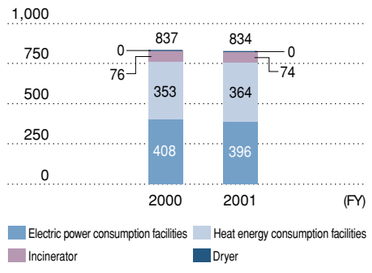
In accordance with an ordinance to enact the Law Concerning the Promotion of the Measures to Cope with Global Warming, we monitor our use of heat, electricity and fuel, and also the amount of waste disposed of in incinerators. This data is used to calculate the emissions rate.

[Calculating Energy Consumption]

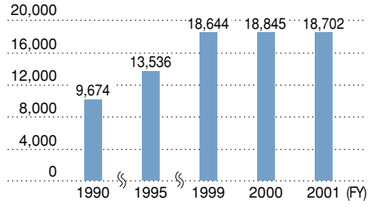
We monitor our use of fuel and electricity and calculate the average heat value (joule) for each of these forms of energy.

* For the average heat value for electricity we used the Energy Conservation Law and for other forms of fuel and energy we used data from the Conservation Energy Center.

Greenhouse Gas by Source (1,000 t)



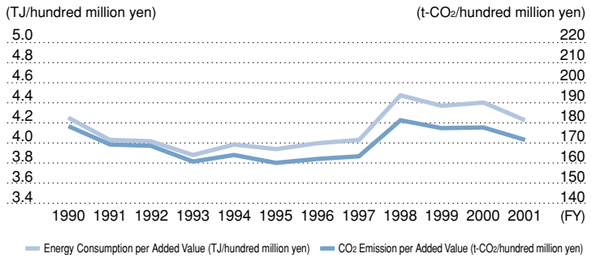
Energy Consumption (TJ)



At the DNP Group, we employ the energy consumption and CO_2 emissions per added value as indicators for eco-efficiency.

In FY 2001, the energy consumption per added value was 4.21 (TJ/hundred million yen). This is an improvement of 0.19 over the 4.40 recorded in FY 2000. The CO_2 emissions per added value was 171.06 (t-CO_2/hundred million yen). This is an improvement of 6.66 over the 177.72 posted in FY 2000.

Energy Consumption and CO_2 Emissions per Added Value



Consumption per value=
Energy consumption (TJ)/added value (100 million yen)

CO_2 emissions per value=
CO_2 emissions from energy consumption (1,000 t)/added value (100 million yen)

Terra joule: 10^{12} joule

The base year for calculating CO_2 emissions is FY 1990. However, as CO_2 emissions from incinerators and dryers were not calculated for the year, CO_2 emissions from incinerators and dryers are omitted.

Measures for Reducing Greenhouse Gas Emissions

[Approximate 1% Reduction]

The DNP Group introduced a cogeneration system, reduced the waste it incinerates, and switched to those types of energy which release a relatively small amount of greenhouse gas in an effort to reduce its emission of greenhouse gases. Owing to these policies, we reduced our greenhouse gas emissions by around 8,700 t-CO_2, in comparison with FY 2000 levels.

This amount is equivalent to 1% of the greenhouse gas emissions in FY 2001.

[Results of Reduction Measures]

1 Results of Cogeneration

There are 8 systems operating at the following 6 sites: Kami Fukuoka, Dai Nippon Technopack Kansai at Kyoto, the Commercial Printing Operations at Akabane, and Tsuruse, Kuki and Mihara.

(t-CO_2)

Emissions from cogeneration	Emissions from the purchase of on-site generated electricity	Emissions from boiler steam	Results
85,340	49,401	38,512	2,573

The reduction was calculated by subtracting the emissions from cogeneration from the emissions of greenhouse gas by purchased electricity and boiler steam.

2 Results of On-Site Waste Incineration

FY 2000 Incineration	FY 2001 Incineration	Reduction	Results
28,471 t	27,778 t	693 t	1,837 t-CO_2

3 Changes to Energy

Dai Nippon Technopack at Sayama, Dai Nippon Cup at Sayama and Hokkaido Coca-Cola Bottling shifted to LNG from fuel oil to reduce their emissions of greenhouse gases (the figures are for the total for all 3 sites).

(t-CO_2)

FY 2000 Emissions	FY 2001 Emissions	Results
10,932	6,710	4,223

The reduction was calculated by subtracting the FY 2001 emissions from FY 2000 emissions.

Correlation between heat value for each type of energy and CO_2 emissions

To achieve the same heat value, the CO_2 emission for electric power is set at 1. The following figures represent the CO_2 emissions for other forms of energy.
Electric power: 1, LNG: 1.34, LPG: 1.72,
Fuel oil: 2.04, Kerosene: 1.93
Consequently, to reduce the emissions of CO_2, energy forms are chosen in the following order, electric power, LNG, LPG, kerosene and fuel oil. The DNP Group uses these figures to select energy and search for alternatives.

Cogeneration System at the Kuki Plant, Ichigaya Publication Printing Operations

Cogeneration System at the Mihara Plant, DAI NIPPON PRINTING PRECISION DEVICE CO., LTD.

Environmental Risk Management

The DNP Group promotes environmental management.

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Compliance with Environmental Laws and Regulations, and Actions Taken

We aim for the early detection of abnormal operations and to prevent pollution accidents, to minimize the risk of a growing economic burden in line with environmental degradation and to risk losing the trust of the local community as a result.

We constantly monitor trends in environmental law and regulations. We verify their correlation with our business activities and products. In regard to the major environmental laws and regulations pertaining to our business activities and products, we ensure they are fully communicated thoroughly throughout the Group as laws and regulations that need to be managed which are listed in the table below. When necessary, we employ our own standards which are stricter than those conditions outlined in the law. We clarify our compliance with laws and regulations through our daily monitoring and measurement activities. Furthermore, we employ a regular environmental audit and made periodical checks of our risk management.

Major Laws and Regulations

Law	Voluntary Standards
Basic Environment Law	
Basic Law for Establishing a Recycling-Based Society	
Law Regarding the Promotion of the Utilization of Recycled Resources	
Law for Promotion of Sorted Collection and Recycling of Containers and Packaging	
Waste Management and Public Cleansing Law	*
Law Concerning the Promotion of the Measures to Cope with Global Warming	
Law Concerning Rational Use of Energy	*
Air Pollution Control Law	*
Water Pollution Control Law	*
Law for Special Measures for the Conservation of the Environment of the Seto Inland Sea	*
Sewerage Law	*
Noise Regulation Law	*
Vibration Regulation Law	*
Offensive Odor Control Law	*
Law Concerning the Protection of the Ozone Layer through the Regulation of Specified Substances and Other Measures	*
Law Concerning the Recovery and Destruction of Fluorocarbons	
Law Concerning Special Measures against Dioxins	*
Law Concerning the Improvement of Pollution Prevention Systems in Specific Factories	*
Law Concerning Special Measures against PCB Waste	
Law Concerning the Reporting of the Release into the Environment of Specific Chemical Substances and Promoting Improvements in Their Management	*
Law Concerning Regulation of Pumping-Up of Ground Water for Use in Building	
Factory Location Law	
Local Regulations	*

Monitoring and Measuring Environmental Impact

We established voluntary standards which are stricter than laws and regulations related to air, water, noise, vibration and odor pollution. We aim to accomplish these standards. The table below exhibits the achievements we made in FY 2001.

Item	No. of Sites Implementing Voluntary Standards	Rate of Achievement (plants achieving voluntary standards/number of plants to which standards are applied)	Voluntary Standards
Air	33	79%	Under 70% of legal standards
Water	11	26%	Under 70% of legal standards
Noise	4	10%	Under 95% of legal standards
Vibration	21	100%	Under 95% of legal standards
Odor	23	77%	Under 70% of legal standards

*1 We excluded the plants to which laws do not apply. For all items subject for measurement, calculations were made for a one-year period to measure the accomplishments made in each area for each plant.

*2 For noise pollution, we also take into consideration the background noise from the areas surrounding our plants.

■ Key Air Pollution Countermeasures
- Shift from fuel oil to gas
- Install an economizer
- Install purifying equipment of exhaust gas
- Exchange a bag filter in an incinerator
- Repair a vent in an incinerator
- Manage air ratio
- Maintain a boiler can
- Abolish a boiler
- Halt an incinerator

■ Key Water Pollution Countermeasures
- Install cleaning equipment of compressor drain water
- Expand an oily water separator
- Install oil absorbent
- Install an oily water separation tank
- Exchange an oil catcher
- Measures against leakage of ash and wastewater
- Change ion-exchange resin
- Change chemicals containing hydrazine
- Review amount of treatment chemicals added
- Install an aerator
- Install a wastewater treatment equipment leakage alarm

■ Key Noise Countermeasures
- Shift to low noise ring blower
- Maintain soundproofing mat of cooling tower
- Install a silencer of compressor motor noise
- Shift from hydraulic type to electric motor type
- Improve seal adhesive of soundproofing door
- Close a vent of facilities
- Maintain floor area and road surface on the premise

■ Key Vibration Countermeasures
- Shift from hydraulic type to electric motor type
- Relocate a facility
- Maintain road surface on the premise

■ Key Odor Countermeasures
- Additional connection of a printing machine to the deodorizing equipment
- Expand deodorizing equipment
- Switch to water-soluble ink
- Remodel a solvent recovering duct
- Install a mist filter

Noncompliance with the Law and Accidents

We strive to comply with laws and regulations related to the environment. We, however, have one case of abnormality in wastewater over the past 5 years. From here forward, we are working to make certain that this problem will never occur again.

Date	Site	Summary
May 24, 2000	Sayama Plant, Dai Nippon Printing Technopack Co., Ltd.	The levels of normal hexane extract combined with oil exceeded standards due to the insufficient purification of compressor drain water. We resolved this problem by fortifying our treatment facilities.

Predictable Emergency and Preventive Action

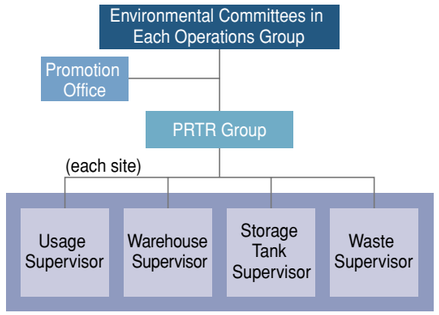
During the production process we use solvents and chemicals. When these solvents and chemicals are delivered to us or when we dispose of them as waste after use, there is a chance of leakage or spills. For this reason we have established the Chemical Substance Management Guide on how to handle chemicals. The facilities to which these chemicals and solvents are delivered are equipped with dams to prevent leaks and shutters in case of emergencies. Our storage tanks for these substances are constructed of a dual layer structure to prevent accidents before they happen. In the event that a crisis does occur, our facilities are equipped with emergency tools and conduct drills on what actions to take in case of an emergency to ensure that environmental pollution is kept to a minimum.

F.D.P. Dai Nippon Co., Ltd.
Dams to Prevent Leakage

Kuki Plant (Electronic Components & Information Media Supplies Division)
Emergency Equipment

Tokyo Plant, The Inctec Inc.
Emergency Shutdown Valve

Management of Chemical Substances



Drills in preparation for an emergency are carried out as shown below.

Mihara Plant, DAI NIPPON PRINTING PRECISION DEVICE CO., LTD.
Training to Handle Leaks

Mihara Plant, DAI NIPPON PRINTING PRECISION DEVICE CO., LTD.
Training to Handle Plugs to Stop Water

Tokyo Plant, The Inctec Inc.
Training to Handle Leaks

Kobe Plant, Dai Nippon Printing Kenzai Co., Ltd.
Training to Handle Leaks

Soil and Groundwater Contamination and Reduction Measures

We carry out a ground investigation when we acquire land or when we are in the process of acquiring ISO 14001 certification. In FY 2001, the sites listed to the right were subject to testing of groundwater and soil. We did not find any pollution at any of these sites.

We developed the guidelines regarding ground contamination following the establishment of the Law Concerning Measures against Ground Contamination. These guidelines define standards for carrying out investigations. Under these guidelines, those sites using hazardous substances designated under the Water Pollution Control Law should close down facilities named under the same law, then a ground investigation must be conducted. In addition, if ground contamination is discovered, it must be reported to the governor of the prefecture which has jurisdiction. In accordance with our guidelines, we follow the guidance of the governor and implement appropriate measures to remove the contaminants.

Soil and Groundwater Investigations in FY 2001

Groundwater Investigation	Tokyo Plant, Dai Nippon Printing Kenzai Co., Ltd.
	Tokai Dai Nippon Printing Co., Ltd.
	Kuki Plant (Electronic Components & Information Media Supplies Division)
	Mihara Plant, Dai Nippon Printing Precision Device Co., Ltd.
Soil Investigation	Kobe Plant, Dai Nippon Printing Kenzai Co., Ltd.
	Chikugo Plant, Kyushu Dai Nippon Printing Co., Ltd.

Legal Suit

There were no environmentally-related legal actions taken against the DNP Group during the period under review.

Storage of Hazardous Substances (PCBs)

The DNP Group stores PCBs. Currently 24 sites store 193 tanks containing PCBs. These PCBs were previously insulation oil used in the electrical condensers. Currently, use of the substance is prohibited. To ensure the prevention of leakage or loss, each site strictly follows laws and ordinances governing the storage of these PCBs. We conduct an internal audit for each site every year to check storage conditions.

Ichigaya Plant, Ichigaya Publication


Ichigaya Sales Division Building: PCB Storage Area

Upstream Activities–Green Purchasing

The DNP Group promotes green purchasing.

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Targets for Green Purchasing

1 Compared with the total raw materials purchased, increase the goods purchased under the purchasing headquarters' green purchasing standards by 2.5% year-on-year.

2 Compared with the total amount of general supplies (including office supplies and fixtures), increase the number of products bearing environmental labeling, such as the Eco-Mark, by 3.0% year-on-year.

* Proprietary standards (green purchasing standards at the purchasing headquarters)
The products referred to above include:
Paper: paper which contains recycled paper
Ink: soybean ink, water-soluble ink, non-toluene ink
Production materials: alternative solvents, recycled solvents, products labeled with environmental mark, reusable/recyclable materials
Sites to which these targets apply are the 32 sites under the supervision of the purchasing headquarters.

Results

We are restricted to manufacturing products based on specifications designated by the client. We use green purchasing as a way of reducing environmental impact upstream. In FY 2001, the rate of environmentally conscious products and materials purchased and the rate of general materials purchased improved 5.0% and 3.8%, respectively.

Raw Materials

In FY 2001, of the total raw materials purchased (paper, ink and materials used in production), 15.9% were environmentally conscious materials. This is 5.0% better than a year earlier.

We created a list of environmentally conscious items for paper products and put it on the Intranet site of the purchasing headquarters. In this fashion, this information is communicated to our sales division. As a result of our efforts, the rate of environmentally conscious paper used, such as A3 coated paper, mat coated paper and color coated paper, increased. In the period under review, the rate of environmentally conscious paper purchased improved by 6.0% over the previous year.

We made significant progress by switching to soybean oil ink. Also we fortified our use of non-toluene ink, used alternatives for solvents and promoted the employment of recycled solvents. As a result, the rate of environmentally conscious ink rose by 12.5%.

In production, the amount of recycled solvent, recycled PS plates, recycled paper tubes and recycled waste products increased. The use of environmentally conscious materials here improved 1.0% from the year before.

General Materials

In FY 2001, of the total general materials purchased, the rate of environmentally conscious products was 9.1%, an improvement of 3.8% over the previous year.

Along with an increase in the new registration of environmentally conscious products to the materials procurement system, we offered guidance in the selection of environmentally conscious products through the use of a message box. As a result, we saw an improvement in the rate of environmentally conscious products purchased, such as recycled copy paper, recycled copy toner and office supplies.

Downstream Activities–Development and Sale of Environmentally Conscious Products

To promote the reduction of environmental impact downstream, we promote the development and sales of environmentally conscious products.

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DNP Group Environmental Targets

Increase sales of environmentally conscious products by 10% year-on-year.

Results

We established the Development Guidelines for Environmentally Conscious Products and conducted development and sales based on the Consideration for the Lifecycle of Products and Services outlined in the Green Purchasing Principles (revised June 12, 2001) by the Green Purchasing Network.
In FY 2001, we achieved our group targets. Sales of environmentally conscious products was ¥75.7 billion. This is an increase of 20% over the previous year (¥63.0 billion).

Development Guidelines for Environmentally Conscious Products

[Reduction of Environmental Pollutants]

Exclusion of ozone depleting substances, heavy metals and organic chlorine compounds. Controlling the release of such substances as greenhouse gases and NOx into the air by using LCA.

[Example]
- ■ Products do not contain organic solvents
- ■ Use of raw materials that do not contain chlorine
- ■ Use of soybean oil ink in printing
- ■ Use of raw materials that do not contain heavy metals such as chrome or lead

[Conservation of Resources and Energy]

Control the use of metallic resources and fossil fuels

[Example]
- ■ Light-weight products

[Sustainable Procuring Resources]

Promote the use of natural resources

[Example]
- ■ Products that use paper not made from wood pulp
- ■ Shift from the use of plastic to paper in products

[Making Long-Term Use Possible]

Consider easy to repair or replace parts, long maintenance and repair periods, and expanded functions

[Example]
- ■ Rewritable card that displays information

[Reusability]

Consider the disassembly, washing or refilling of a portion or parts of a product and establish a system for the collection and reuse of products which is easy to use for customers.

[Example]
- ■ Refill bottles

[Recyclability]

Use materials that make products easy to recycle. A design that makes it simple to separate, disassemble or divide up. A collection and recycling system easy for customers to use.

[Example]
- ■ Products with simplified materials

[Use of Recycled Materials]

Wide use of materials and parts that were collected and recycled

[Example]
- ■ Use of 100% recycled paper in printed material
- ■ Products which use paper as insulation material
- ■ Products using recycled plastic

[Easy Disposal]

Consider reduction of impact on incinerators and landfills

[Example]
- ■ Products that can easily be dismantled by material
- ■ Products that use biodegradable plastic

Technological Development for Environmental Conservation and Reducing the Environmental Impact of Our Products

At the R&D center, technological development center, and research centers for each of our businesses, we work to develop technologies that reduce environmental impact caused by the manufacturing process and products that have little environmental impact.

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Technological Development to Reduce Environmental Impact during the Manufacturing Process

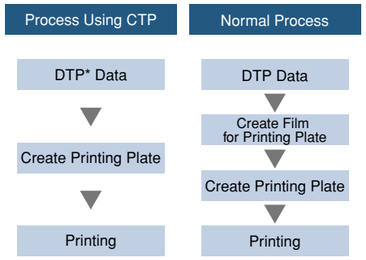
To reduce environmental impact during the manufacturing process, we conduct a wide range of technological development. This includes creating gravure printing processes and lamination processes that do not require the use of solvents or that use water (curbing the emission of VOCs), various inspection equipment (controlling waste emission), improvement of the efficiency of printing machines (energy conservation) and development of more efficient printing systems.

We are promoting CTP in offset printing to increase efficiency of our printing system.

CTP stands for Computer-To-Plate. It eliminates the plate-making film process. The original plate is created on a computer and a laser is used to directly create a printing plate. By using CTP, the emissions of waste and development fluid or fixing chemicals are reduced because there is no need for the plate-making film. Also it saves on energy as there's not need for an exposure device to create the plate-making film.

Furthermore, we developed the DIGI-DEMIA which largely boosted our efficiency. For multicolor offset printing, it uses CTP digital data to match colors on the color proof and the printing machine. By using the data for the original plate output by the CTP, the DIGI-DEMIA calculates the appropriate amount of ink and automatically presets the amount. Once the printing begins, it efficiently adjusts the colors. The device reduces waste and conserves on energy.

CTP Image



*DTP: Desk Top Publishing
Use of a workstation or PC to create illustrations, input photographs, edit, layout wording and print out the final product.

Actions to Reduce Environmental Impact of Products

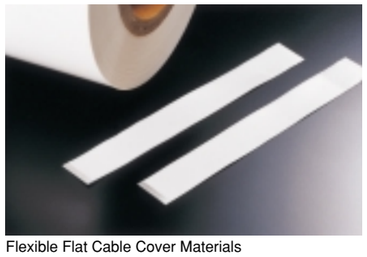
To reduce the environmental impact of products, we phase out the use of halogen-based substances and VOCs (reduction of environmental pollutants), and promote unification of materials (improved recycling) and reduction of volume.

In FY 2001, we began sales of Flexible Flat Cable Cover Materials and Ecofit IC Card i-type. They are products which do not contain organic chlorine compounds.

Flexible flat cable cover materials are used to conserve labor and prevent mistakes in wiring for electronic and computer equipment which have complex inner wiring. This product uses no halogen-type substances or phosphorus compounds. Because the main material is a metallic compound, the material is flame-retardant and easy to process.

The Ecofit IC card i-type is an IC card made from an injection mold. It is made of ABS resin or other non-polyvinyl resins.

We also produce Pre-armor, a decorative board used as a building material. We eliminated VOCs in this product. Pre-armor uses a proprietary coating technology based on an electronic beam curing technology. This product does not use any VOCs, eliminating irritating odors or allergic reactions. The base material is paper. Because of this, when it becomes construction waste, it can be recycled into particle board.


Flexible Flat Cable Cover Materials

Ecofit IC Card i-Type


Pre-armor

Life Cycle Assessment (LCA)

LCA is a method to assess the life cycle of a product, objectively comparing energy use and emissions such as to the air. We conduct LCI (life cycle inventory, a LCA method defined by ISO) at our packaging business. From November 1997, this has aided our development of environmentally conscious products.

The use of LCA to assess products is not only meaningful for DNP and its customers. Under the Container and Package Recycling Law (1996), the government must establish a LCA method and disclose information (obligation of the state) and a company must promote development of product using LCA and information disclosure to consumers (obligation of a company). From here forward we will continue product development using LCA as a member consisting of the recycling-oriented society.

[Goal of Life Cycle Inventory]

1. Comparison analysis of several products to help select containers or packages
2. Assess benefit of improved product (ex.: compact containers, results of creating lighter product)
3. Impact analysis of current conditions of products to extract target values for improvement

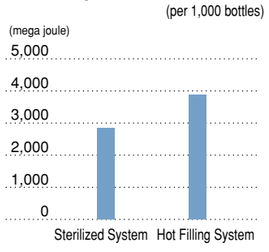
By implementing LCI, we can calculate a value for the environmental impact of a product from the upstream and downstream operations, from the cradle to grave.

[Assessment of an Improved Product Using LCA: Sterilized Bottle-Filling System "APP-600"]

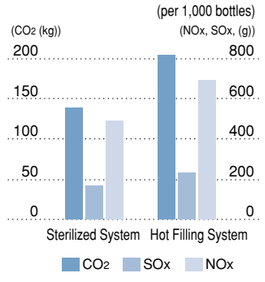
Previously, PET bottle beverages were filled at high temperatures as a method of sterilization. We developed the sterilized bottle-filling system. The beverage itself is sterilized at a high temperature for a short time then cooled. The bottle and cap are sterilized and kept in a sterilized room. This is where the filling takes place. This makes it possible to fill bottles at room temperature. The system is also unique as it allows the bottles to be formed and filled at the same line. The bottles are delivered in a preform shape, i.e. they are not yet molded into bottles.

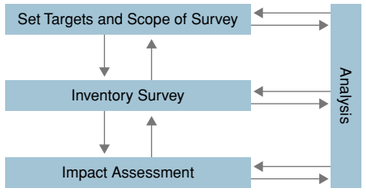
We used the LCI analysis to compare energy consumption and emissions to the air between the two different systems. As shown in the graph below, the sterilized bottle-filling system allows for a greater reduction of energy consumption and emissions to the air.

Comparison of Energy Consumption



Comparison of Emissions

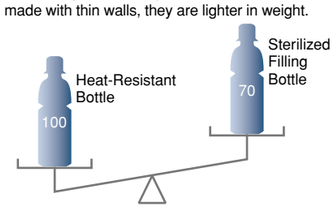




LCA Method Regulated under ISO 14040

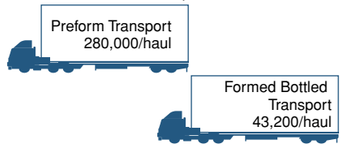
Special Characteristic 1
Light-Weight Bottles

Sterilized bottle-filling system where bottles can be filled at room temperature. Heat-resistant bottles are no longer necessary. As the bottles can be made with thin walls, they are lighter in weight.



Special Characteristic 2
Preform Supply

When empty bottles molded into shape are transported to the filling plants, the truck basically is transporting air. With the sterilized bottle-filling system, the efficiency rate of transports can be improved by transporting the bottle before they have been molded into shape, i.e. preform. This reduces both transport cost and energy.
For example, in the case of a 10-t truck, for formed or molded bottles, only 43,200 units can be transported. But the same truck can carry 280,000 or 6.5 times the amount of preformed bottles.



Comparison of Bottle Transport Efficiency
(in the case of a 10-t truck)

Reducing Environmental Impact–Downstream

Unfortunately, we currently only monitor the downstream environmental impact for containers and packaging. In this area, we are required to recycle them in accordance with the Container and Package Recycling Law. We do this through the Japan Containers and Packaging Recycling Association. In FY 2001, we paid the association ¥116.415 million.

In FY 2001, we estimate the CO_2 emissions stemming from the containers and packages we manufactured was 402,000 t. DNP Group Eco-Mark products include the S-mail Recycled Paper (70%), the S-mail Recycled Paper (100%), and the Super S-mail Clear Recycled Paper. S-mail is the size of a postcard and can carry the same amount of information that can be fit onto an envelope. Private personal information is printed onto the inner-side of the S-mail and folded closed. Postage is the same as for sending a postcard. In FY 2001, total sales of the three types was around ¥300.0 million.

Other Environmentally Conscious Products

Reduction of Environmental Pollutants

Environmentally Conscious Decorative Sheets (VOC countermeasures, phase out of PCV compounds)

We revised our specifications for the decorative sheets we manufacture for used by housing and construction material manufacturers in construction and building supplies. They now use a non-PCV base film. And they do not use printing ink or coating which contains VOCs, the chief cause of "sick house" ailments as stated by the Ministry of Health, Labor and Welfare. In addition, we manufacture a decorative sheet following EB coat specifications. The special feature of this product is its hard surface. The product is superior in durability and stands up to dirt.

WS Safmalle

EB Coat Specification HT Floor

IB Films (eliminating organic chlorine compounds)

We manufacture a barrier film for packaging that is free of organic chlorine compounds, which is one of the sources of dioxins emissions. They have been used for food packages that require barriers and for small bags for liquid soup, seasoning.

IB Film

PET-G Card (phase out of PCVs)

The cards do not fire off chlorine gases when incinerated. The base material of the card is amorphous copolyester that can be separated into water and carbon dioxide. This can be used for IC cards as well.

PET-G IC Cards

Environmentally Conscious Ink (VOC countermeasures)

In general, printing inks were made mainly of petroleum-based solvents. As an alternative substance, we promote development and sales of environmentally conscious ink such as soybean ink, aroma free ink, low VOC ink, and non-toluene ink.

Soybean Oil Ink

Water-Soluble Gravure Ink

Conservation of Resources and Energy

Thin-Layered EC Lamination (light weight packaging material)

PE-EC (polyethylene extrusion) is a proprietary technology. By improving materials and film manufacturing methods, we are able to laminate with a thinner film (as thin as 5 microns), instead of the conventional EC thickness of 13 microns. This leads to a maximum weight reduction of 30% after wrapping.

Thin-Layered EC Lamination

Spouch (reduction of manufacturing energy)

We manufacture beverage pouches to which a spout is attached. The cap on the spout makes it possible to open and close the container multiple times. They have greater portability and can be reduced for the volume after use. As a result of LCI analysis, it was found that the energy consumption and emissions into the air at the time of packaging and manufacturing were minimal. They can be used for ingredients that require disinfecting as well.

Spouch

Extracting Sustainable Resources

G-Type Cardboard (recycled paper)

The characteristic of this product is that its flutes are smaller in comparison with conventional cardboard. It uses a high rate of recycled paper as conventional cardboard (A-, B-, C-Type cardboard). At the same time, it is thinner, lighter, flatter and smoother. Since cardboard is generally made by combining a liner and center core, G-Type cardboard is more durable than its thickness. In addition, as it is as durable as coated boards, it can be used to achieve extremely light-weight products. In this fashion, we promote the recycling of used paper by using this type of cardboard which contains a high rate of used paper.

Heat-insulated Paper Cups (HI-Cup) (shift from plastics to paper)

The two layers – the main paper cup and outer paper sleeve – provide heat insulation. They can be compressed to reduce volume after use and can be made from recycled paper.


HI-CUP

Paper Tray (P-DISH) (shift from plastics to paper)

Paper tray is suitable for prepared foods and frozen foods. This is also microwavable. Patterns can be printed on the inside and outside of the tray and it is more esthetically pleasing than plastic tray. It can be compressed to reduce volume after use.


P-DISH

Making Long-Term Use Possible

Simple Refreshing Products

By simply adhering the thin panel or sheet one can change the interior of a room. Houses can be used for a longer period of time as this enables the prevention of noise, foul odors, dust and waste without the need for construction work.


Thin Waist Boards Made of WS Compo

Reusability

Stand Pouch Refills (contributing to resource recycling system)

We improved the mechanism to open and pour from to develop a new type of stand pouch refill. It serves reuse of the original bottle. After use, the empty pouch can be flattened to reduce the volume of waste.

Stand Pouch Refills

Use of Recycled Materials

Magazines, Pamphlets and Textbooks Made from 100% Recycled Paper

We develop 100% recycled paper jointly with Oji Paper Co., Ltd. We promote groupwide use of it.

Magazines, Pamphlets and Textbooks Made from 100% Recycled Paper

Recyclability

Decorative Aluminum Sheets for the Interior of a Car: Highly Firm Art-Tech (use of easy to recycle material)

Not possible with conventional materials, the decorative aluminum sheets for car interiors are recyclable. While it can be bent to adapt to curves is it highly durable.

Bookbinding (use of easy to recycle materials)

We use water-soluble glue to bind books. This makes it easy to recycle the paper when disposed of. We also do not use staples or other metal fixtures. Therefore it is very safe and also suitable for inserts.


(enlarged view)
Pamphlets Bound with Water-Soluble Glue

e-video (use of easy to recycle materials)

We manufacture a video cassette made of polyethylene that does not emit dioxins when incinerated and is easy to recycle. In addition, we developed the “no-metal e-video,” which does not use any metal parts.

e-video

POP (eco cut out) (unnecessary to separate and divide parts)

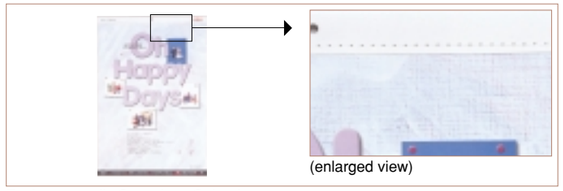
We manufacture POPs by using cardboard materials for packing as part of their structure. We use no plywood or metal plates. Therefore there is no need to disassemble them when thrown away.

prior to assembly　　after assembly

eco cut out

Environmentally Conscious Calendars (unnecessary to separate and divide parts)

We manufacture calendars made from recycled paper and printed with ink with lower environmental impact. We use no metal or plastic parts.



(enlarged view)

Environmentally Conscious Calendars

Easy Disposal

Bag in Box (BIB)/Bag in Carton (BIC) (easy to disassemble)

These containers are made by attaching two layers together: a plastic inner bag and a paper outer box. They can be folded separately before and after use, saving greatly on storage space. In addition, they can be easily separated after use for recycling.

BIB

Stretch Labels (easy to disassemble)

These labels are not glued to the bottles, therefore it is easy to peel them off after use. They can be separated by weight when used for PET bottles. Compared with other labels, Stretch Labels are more energy- and cost-efficient, and easier to design.

Stretch Labels

Measures to Reduce Environmental Impact during Transports

DNP Logistics Co., Ltd. handles the DNP Group’s distribution. We establish targets and promote the reduction of environmental impact stemming from transports.

Shin Nihon & Co. Shin Nihon & Co. checks to ensure that the assertions and content of this report, and the content and matters of fact are consistent with one another.

Targets

Targets by March 2011 from FY 2000 levels

1. Reduce CO_2 emissions by 5% (CO_2 emission/transport tons kilometer*1)

2. Reduce fuel consumption during transport by 20% (fuel consumption/sales)

*1 Transport tons kilometer = Σ(cargo load x distance traveled)

Results

In FY 2001, in comparison with FY 2000, CO_2 emission per transport tons kilometer was reduced by 17.0% and fuel consumption during transports per sales fell 6.9%. In addition, CO_2 emissions fell by 13.1%.

		FY 2000	FY 2001	FY 2010 Targets	
Transport tons kilometer	[million t-km]	53.18	55.65	—	(1)
Fuel consumption (diesel oil)	[kℓ]	2,299	1,997	—	(2)
Sales	[100 million yen]	27.60	25.74	—	(3)
CO_2 emissions	[t]	6,069	5,272 (-13.1%)	—	(4) = (2) x 2.64*2
CO_2 emission per transport tons kilometer	[t-CO_2/million t-km]	114	95 (-17.0%)	108	(4)/(1)
Fuel consumption during transport per sales	[kℓ/100 million yen]	83.3	77.6 (-6.9%)	66.6	(2)/(3)

*2 CO_2 coefficient for diesel oil

DNP Logistics Co., Ltd.

Our distribution company maintains 200 trucks and its operations are centered in the Tokyo metropolitan area. FY 1999 was the first year we participated in the “Eco-Up Office Plan in Tokyo.” We implemented environmental activities such as measures to stop idling.

In FY 2001, we used the areas of Sayama and Yokohama as our model. We introduced 36 trucks with digital tachometers to improve our transports as well as to stop idling. As a result, in these two areas, fuel consumption was reduced by 35 kℓ and CO_2 emissions were reduced by 93 t. The reduction rate was 8.4%. As a result of prohibiting idling through the company, and also improving the efficiency of transports for large-scale trucks, we were able to reduce both our CO_2 emission per transport and fuel consumption during transport per sales.

From here forward, not only do we plan to improve the conditions of our transports but from April 2002, to further promote the reduction of environmental impact, we plan to begin test runs at our Akabane site of low-sulfur diesel oil (1/10 of sulfur contained in regular oil) vehicles, such as city buses.

Fuel Reduction through Improved Transports

	FY 2000	FY 2001	
Distance traveled [1,000 km]			
(Sayama)	1,050.9	979.8 (1)	
(Yokohama)	955.3	917.1 (2)	
Fuel consumption [kℓ]			
(Sayama)	225.3	190.2 (3)	
(Yokohama)	219.8	195.6 (4)	
Fuel efficiency [km/ℓ]			
(Sayama)	4.66 (5)	5.15	
(Yokohama)	4.35 (6)	4.69	
Fuel consumption based on FY 2000 fuel efficiency [kℓ]			
(Sayama)		210.0 (7)	(1)/(5)
(Yokohama)		211.0 (8)	(2)/(6)
Reduction in fuel consumption [kℓ]			
(Sayama)		19.8	(7) – (3)
(Yokohama)		15.4	(8) – (4)
Reduction in fuel [kℓ] Total		35.2 (9)	
Reduction in CO_2 [t]		93.0	(9) x 2.64
Rate of reduction in fuel [%]		8.4	(9)/((7)+(8)) x 100

Low-Sulfur Diesel Oil

Eco-Up Office Plan

Registration

Environmental Communication

Disclosure of Environmental Information

Since 1998 we have released our annual “Environmental Report” to keep external stakeholders informed of our environmental efforts and achievements. Since 2000 we have also been providing services to help our customers with the production and release of their own environmental reports and information.

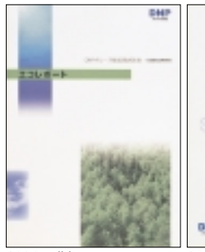
Shin Nihon & Co. Shin Nihon & Co. checks to ensure that the assertions and content of this report, and the content and matters of fact are consistent with one another.

Release of DNP Group Environmental Information

[Release of Our “Environmental Report”]

First produced in 1998, this year’s Environmental Report marks the 4th to be released. The contents of the report were determined following mutual discussions between the Environmental & Product Liability Department, the Press and Public Relations Department and the Planning Section, which each made efforts to ensure thorough coverage of important issues.

The 2002 edition is to be released in both Japanese (10,000 copies) and English (2,000 copies).


1998 edition

2000 edition

[Significance of the Cover]

The fundamental building blocks for writing, printing and communications are the characters. In view of this, we chose for the cover of our report “Tompa” characters this year too. They are hieroglyphic characters 1,300 of which can still be found in China today. We had Katsumi Asaba, a leading art director, select characters with an environmental theme for the covers of our 2001 and 2002 reports.

The character so chosen for our 2001 report means “The Resonance of Sky and Earth,” while that chosen for 2002 means, “accelerating greenificaiton.”


2001 edition

[Results from the 2001 Survey]

We received a total of 17 responses from our readers. Here are a few of the more noteworthy points brought to our attention:

- There were surprisingly few sites that acquired ISO 14001.
- It was difficult to tell at a glance the degree to which the targets had been achieved.
- I was a little dissatisfied with the fact that there were more relative than absolute values given to indicate the benefits of environmental conservation.

We will continue our efforts to improve our reports taking into account these and other opinions of our readers.

Our average score in the 2001 survey was 4.3 points (perfect score: 5 points).

[Evaluation of Our Environmental Management]

In the 5th Environmental Management Survey performed by the Nihon Keizai Shimbun, Inc. in Autumn 2001, the DNP Group was ranked 15th, up from 31st in last year’s survey. Third party evaluations on our achievements give us a driving force of environmental causes and broaden our scope of activities. Prompted by the evaluation of our efforts described under the heading “Summary of efforts-DNP” in the survey, the DNP Group will focus on strengthening its efforts to improve its reputation in matters concerning global warming, resource recycling and risk.

[New Methods to Improve Reliability of Our Report]

As mentioned in the Reporting Policy section, as of the 2002 report, we have implemented new methods to improve the reliability of our reports using the Kensyou Meidai method. This page has also been subject to these methods as indicated by the above mark.

Environmental Communications Business

[Environmental Report Support Services]

Starting in 2000, we began to provide environmental report production assistance services. The aim of the new services is the provision of high quality report production services. This we achieved by joining hands with Shin Nihon & Co. and the Environmental Management Center Co., Ltd. both professionals in the field of environmental issues and risk management. As a result, in FY 2001 we handled environmental reports for a large number of companies, some of which were awarded the "Environmental Report Awards" and the "Green Reporting Award."

[The Environmental Communications Workshop "Kurumaza"]

We held a round table meeting of the Environmental Communications Workshop "Kurumaza" each month from August 2001, through to March 2002, a total of 8 meetings. Co-sponsored by DNP, Shin Nihon & Co. and the Environmental Management Center Co., Ltd. the intention of the workshop is to provide a venue to allow the environmental managers of each business to exchange opinions in a free atmosphere. Instead of the usual "seminar format," the workshop meetings consist of free discussions, and focus on urgent issues and issues that cannot be resolved easily within a single company. Some 20 companies participated in the discussions. In the future we will continue to hold workshop to address a variety of contemporary subjects.

[Holding of "Environmental Report Production Seminars"]

Since January 2000, we have been holding annual seminars to give our clients practical advice on how to put together an environmental report. In FY 2001 the seminar was held on December 25 in Tokyo, and was attended by 100 persons from 90 different companies.

Seminars

TOKYO GAS Co., Ltd.

NEC Corporation

Topics Discussed by Kurumaza Workshop
August 2001
Environment and Business Performance Evaluation Systems
September 2001
Disclosure of Company Environmental Information to the General Public
October 2001
Japanese Institute of Certified Public Accountants Guideline Concerning Independent Review
November 2001
Exchange of Views with the Ministry of Environment Concerning Various Guidelines
December 2001
Production of English Environmental Reports
Environmental reports overseas
Production of English environmental reports
January 2002
Environmental Reports from the Perspective of Risk Communication
Example of Disclosure of Negative News
February 2002
Using the Internet for Environmental Communication
The Possibilities of Broadband Contents and Environmental Data Disclosure
March 2002
Regarding Environmental Report Awards
History and current state of the awards system
The awards system from the perspective of the producer

Relationship with Local Community

The DNP Group promotes community involvement such as environmental volunteer activities by our employees as well as activities within the Group.

We have production sites nationwide. As a member of the community, we endeavor to maintain open lines of communication with the local community through volunteer activities including cleanup programs. Unfortunately, at times, we receive complaints about noise and foul odors from the surrounding area. We do our best to methodically determine the cause of the problem and not only work to resolve the crisis but also to ensure that it does not happen again.

In addition, some employees of the Group participate in volunteer activities outside the company.

Major Environmental Volunteer Activities

[Tohoku Dai Nippon Printing Co., Ltd.]	Neighborhood path cleanup (every Monday)
[Izumizaki Plant, Dai Nippon Printing Technopack Co., Ltd.]	Participated in a cleanup program for the area around the plant as a member of the Izumi Industrial Park Group (jointly held with Izumizaki village) (Oct. 12)
[Kawaguchi Plant, Dai Nippon Offset Co., Ltd.]	Cleanup of roads nearby residential areas (daily)
[Warabi Plant, Business Form Operations]	Cleanup of the area around the plant (3rd Friday each month)
[Sayama Plant, Dai Nippon Printing Technopack Co., Ltd.]	Beautification and cleanup of neighboring roads (once to twice a month)
[Dai Nippon Printing Fine Electronics Co., Ltd. and Kuki Plant, DAI NIPPON PRINTING PRECISION DEVICE CO., LTD.]	Participated in a cleanup campaign for areas around the plants and roads to the Kami-Fukuoka station (May 1) Cleanup of roads to the north and west of the plant (daily)
[Akabane Plant, Commercial Printing Operations]	Cleanup of public roads around the plant (daily)
[Tokai Dai Nippon Printing Co., Ltd.]	Participated in cleanup of the area around the Tsuruma park (Jun. 2) Participated in a cleanup program of "Clean Campaign in Nagoya 2001" (Oct. 31)
[Tanabe Plant, Dai Nippon Printing Technopack Kansai Co., Ltd.]	Pulling of weeds on banks of the Bouga river (Jun. 26)
[Nara Plant, Business Form Operations]	Pulling of weeds around the plant (monthly)
[Mihara Plant, Dai Nippon Printing Precision Device Co., Ltd.]	Collection of rubbish on banks of the Nuta river (Jun.)
[Shikoku Dai Nippon Printing Co., Ltd.]	Cleanup of the area around the plant (twice monthly)
[Fukuoka Plant, Kyushu Dai Nippon Printing Co., Ltd.]	Cleanup of sidewalk around the plant (daily)

Communication with the Local Community

[Tokyo Plant, Dai Nippon Printing Kenzai Co., Ltd.]	Participated in the 26th Miyoshi ekiden (relay marathon) (Feb. 3)
[Warabi Plant, Business Form Operations]	Company volunteer fire brigade participated in Warabi city general fire prevention drill (Aug. 26)
[Ichigaya Plant, Ichigaya Publication Printing Operations]	Accepted plant study tour by elementary and junior high school students (37 tours: 994 persons in total)
[DNP Logistics Co., Ltd.]	Co-sponsored "Akabane Fools' Festival" (Apr. 26)
[Plants in the Akabane district]	Guidance at crosswalks during traffic safety week (Spring and Fall)
[Tokyo Plant, The Inctec Inc.]	Participated in Midori-ku Fire Prevention Drill. Won the best small pump operator prize (Jun. 4)
[Kyoto Plant, Dai Nippon Printing Technopack Kansai Co., Ltd.]	Participated in beautification activities sponsored by the Industrial Council, aimed at beautifying the Omuro and Tenjin rivers (Oct. 16)
[Okayama Plant, I.M.S. Dai Nippon Co., Ltd.]	Mitsu-cho Summer Festival (Nov.17)
[Mihara Plant, Dai Nippon Printing Precision Device Co., Ltd.]	Participated in "Yassa Festival" (Jul. 4)
[Chikugo Plant, Kyushu Dai Nippon Printing Co., Ltd.]	Volunteer fire brigade helped extinguish fire in neighborhood fire (Mar. 27)

Activities of the Kuki Plant Young Drivers' Club

The Kuki Plant Young Drivers' Club was established on September 21, 1989 by young (i.e., those their 10's or 20's) employees of the Kuki Plant who commute to work by private car with the aim of improving traffic safety awareness in young drivers and prevention of traffic accidents.

[Activities]

- Research of safe driving practices
- Participation in various traffic safety movements
- Once each year since 1991, the Club pulls weeds from the footpaths near the company and picks up rubbish from streets and footpaths as part of its community volunteer service to help maintain a safe and pleasant traffic environment.

[Number of Members] 120 persons

The aims of the Young Drivers' Club are improvement of traffic safety awareness and prevention of traffic accidents. One of the activities performed by the group in an effort to achieve such aims is "community volunteer services to help maintain a safe and pleasant traffic environment," which also involve the removal of dangerous obstacles, such as cans, from roads. Although the road cleaning activities are held only once a year, they help instill an awareness of the importance of maintaining a safe and pleasant traffic environment, and are performed by some 300 volunteers each year. The activities give participants a sense of achievement for having made a contribution, albeit a small one, to the local community, while also providing them with an opportunity to communicate in the open air with other employees with whom one would seldom otherwise have a chance to meet.

Naoto Shiina
Chairman of the Young Drivers' Club
Employee of F.D.P. Dai Nippon Co., Ltd.

Road Cleanup

Activities of Forestry Supporters ["Hama-nakama Circle"]

[Activities]

- Forestry work such as tree planting, weeding, pruning, shaping, tree thinning, etc.
  The forestry supporters group, which consists of men and women both young and young at heart from a wide variety of backgrounds, meets about 20 times a year at the man-made forest at Hinohara village to perform such activities as tree thinning, pruning and weeding.

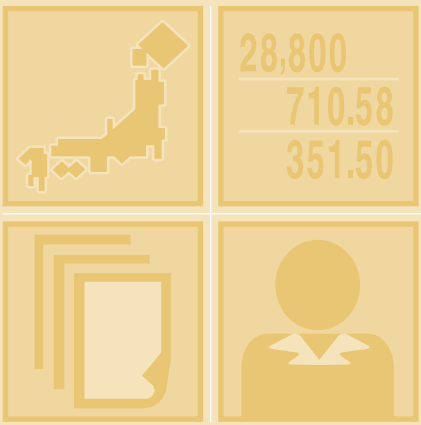
Although some 2/3 of Japan is covered with forests, of which 1/3 are man-made, the nation's timber self-sufficiency rate is less than 20%. This situation has been brought about by the large increase in imported timber, which served to deflate overall timber prices, thereby making local timber unable to compete. If you look closely at even some of the country's mountains, you can see how sunlight is unable to reach the ground due to the thickness of the trees, which in turn is leading to land slips due to the lack of undergrowth. Once planted, man-made forests need continual care, and if such care is neglected, the mountain itself will fall into ruin and lose its original environmental function.

I have been in the group for seven years now, and consider looking after forests as a kind of recreation. Forestry work, of course, involves a lot of hard labor, and it is sometimes difficult to get up early on your day off to climb the steep mountain to the work site, but the feeling of having the clean mountain air go through your entire body is wonderful, which makes the kind of tiredness you get from working in an office during the weekday disappear. Just about anyone can do forestry work, as long as you observe the safety rules and work at a steady pace. In the future, we hope that more city people receiving clean air and water from forests will participate in forestry work.

Osamu Ichikawa
Export Management Manager

Mr. Ichikawa participated in the Hama-nakama Circle since 1995. The Group operates in support of the forestry industry and serves to join city dwellers with forestry professionals. He has been working as a volunteer to maintain the man-made forest at Hinohara, Nishi Tama-gun, Tokyo.

Forestry Workers on the Job



Site Reviews

Please see DNP's Web site for environmental data of our sites.
http://www.dnp.co.jp/eng/eco/

Internal Environmental Auditing

Each site carries out an "Eco-Audit" based on the designated standards and procedures in accordance with the Eco-Report System so that they may confirm that the PDCA (Plan, Do, Check, Act) practices are being carried out properly.

Shin Nihon & Co. Shin Nihon & Co. checks to ensure that the assertions and content of this report, and the content and matters of fact are consistent with one another.

Targets

To have Eco-Audits carried out at each site.

[What is Eco-Audit?]

An Eco-Audit is an internal environmental audit of a company's operations as performed by a company-certified "Eco-Auditor" in accordance with prescribed auditing standards and procedures.

Eco-Audits are performed by an auditing team headed by a chief auditor and one or two eco-auditors selected by a chief auditor.

[Eco-Auditor Training Session and Eco-Auditor Qualifications]

Eco-Auditor training sessions are training seminars for developing Eco-Auditors. The seminars are conducted using original teaching materials, and include lectures covering items 1) to 8), which are requirements of the Eco-Report System:
1) Purpose of audit, 2) Scope of audit, 3) Structure of auditing team, 4) Flow of audit, 5) Notes when performing audits, 6) What to look for when performing on-site audits, 7) Check list concerning requirements of 12 environmental laws, 8) Operation audit check list

Auditors who complete the Eco-Auditor training course receive an Eco-Auditor's qualification.

[Steps in Eco-Audit]

The Environmental Committee of the DNP Group considers Eco-Audits to be an important monitoring operation of the Eco-Report System, and carry out such audits according to the following system:

Item	Person in Charge	Notes
Eco-Auditing annual execution plan	Environment & Product Liability Department	Mentioned in the eco-report
▼		
Notification of Eco-Audit for each site	Chief auditor	Notification to site being audited
▼		
Execution of Eco-Audit	Auditing team	Participation by person in charge of site being audited
▼		
Report of results of Eco-Audit	Chief auditor	Approval by person in charge of site being audited
▼		
Request of remedial action response sheet	Chief auditor	Person in charge of site being audited
▼		
Submission of remedial action response sheet	Person in charge of site being audited	Approval by environmental committee chairman of operations group being audited
▼		
Receipt of remedial action response sheet	Environment & Product Liability Department	Approval by environmental committee chairman of the DNP Group

[State of Internal Environmental Audits (Eco-Audit)]

We performed Eco-Audits at all sites in FY 2001.

The resultant reports contained 93 instances of the "Requires improvement" rating being given and 246 instances of "Consider improvement or examination."

There were also instances which constituted legal infringement such as failure to register a special facility or failure to notify a waste product storage area.

Furthermore, sites which have received "Requires improvement" or "Consider improvement or examination" evaluations are required to submit a remedial action response sheet so that we may confirm that the problems pointed out have been addressed properly.

Eco-Audit
Auditing Environmental Facilities

Eco-Audit
Auditing Documents

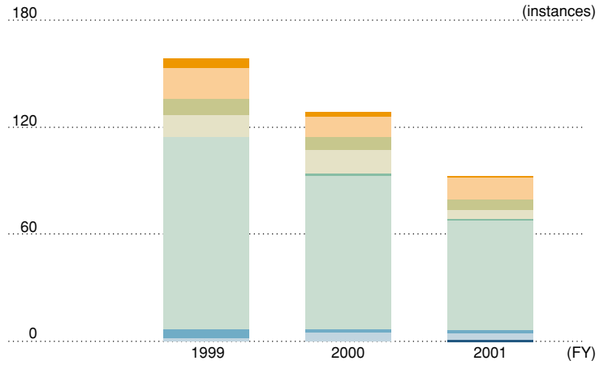
Cautionary Notes Used in Eco-Audit Reports and Requests for Improvement

Level of Caution	Remedial Response Required
"Requires improvement"	Submission of remedial response sheet (execution or planning of remedy)
"Consider improvement or examination"	Submission of remedial response sheet (results of consideration or examination of problem; remedial plan)

2001 Eco-Audit Performance

Number of sites being audited	51
Number of persons in charge of site being audited attended	329
Cumulative auditor number	142
Cumulative auditing hours	262
Number of qualified Eco-Auditors	92

Instances of "Requires improvement" Caution Being Given in Eco-Audit Report



	1999	2000	2001
Air	6	3	1
Water	17	11	12
Noise	9	8	6
Vibration	9	13	5
Odor	0	1	1
Waste	108	86	62
Energy	6	2	1
Pollution prevention organization	1	5	4
Dioxin	0	0	1

Activities by Site

Izumizaki Plant, Dai Nippon Printing Technopack (printing for flexible packaging)
7 Industrial Park, Izumizaki, Nishishirakawa, Fukushima

Tel: +81-248-53-5500

Established: November 1996

Environmental Conservation Cost

Unit: ¥1,000

Content	Capital investment	Cost
1) Prevention of air pollution	0	500
2) Prevention of water pollution	0	4,897
3) Noise prevention	0	500
4) Vibration prevention	0	0
5) Odor prevention	347,270	51,438
6) Prevention of global warming	0	0
7) Prevention of ozone layer depletion	0	0
8) Reduction, recycling, disposal of waste	0	212,144
9) Environmental management activities	0	1,419
10) Afforestation, beautification, cleaning	0	4,625
11) Other	0	0
Total: Environmental conservation cost	347,270	275,523
Economic benefit related to environmental conservation activities		
1) Gain on sale of recyclable materials	4,931	

Air

Substance	Facility	Actual (Max)	Regulated
SOx [Nm^3/h]	Incinerator	0.27	3.04
	No.1 Freezer	less than or equal to 0.01	0.54
	No.2 Freezer	less than or equal to 0.01	0.54
Dust [g/Nm^3]	Incinerator	0.041	0.1
	No.1 Freezer	less than or equal to 0.003	0.05
	No.2 Freezer	less than or equal to 0.003	0.05
NOx [capacity rate: ppm]	Incinerator	122	200
	No.1 Freezer	101	130
	No.2 Freezer	94	130
Hydrogen chloride [mg/Nm^3]	Incinerator	54.8	100
Dioxins [$ng\text{-}TEQ/Nm^3$]	Incinerator	0.0000047	3

Water

Substance	Actual (Max)	Actual (Ave)	Regulated
BOD [mg/ℓ]	19	14.3	20
COD [mg/ℓ]	28	18.6	40
Suspended matters [mg/ℓ]	12	5.4	40
n-hexane extracts (mineral oil) [mg/ℓ]	less than or equal to 0.5	less than or equal to 0.5	1
n-hexane extracts (vegetable oil) [mg/ℓ]	2	0.8	10
Hexavalent chromium [mg/ℓ]	less than or equal to 0.01	—	0.2
Phenol [mg/ℓ]	less than or equal to 0.5	less than or equal to 0.5	1
Copper [mg/ℓ]	0.04	—	2
Steel [mg/ℓ]	0.15	—	10
Chrome [mg/ℓ]	less than or equal to 0.01	—	2

Release and Transfer of PRTR Chemicals

(t/year)

Substance	Release			Transfer	
	Air	Water	Soil	Sewer	Waste
Hexavalent chromium compounds	0	0	0	0	0.021
Copper salts (water-soluble)	0	0	0	0	0.17
Toluene	590	0	0	0	610
Dioxins [mg-TEQ]	0.00070	0	0	0	7.1

[Review of Environmental Affairs Manager]

Sadao Yamaguchi
Izumizaki Plant Manager
Senior Managing Director

Our site is located within an industrial park in the south of Fukushima, and is surrounded by lush vegetation. The site was established as the production base for flexible packaging in autumn 1996. The packaging materials we make have to be reliable and safe as many are used as containers for medical and food products. We also perform operations to show the local community our commitment to the environment, so that we may be viewed as a “safety-oriented plant.”

Since the establishment of our site, we have installed a great deal of environmental-impact reducing facilities, including a heat recovering incinerator, a closed printing plate wastewater treatment facility, and a flue gas odor removing apparatus. In FY 2001 we installed a new solvent gas recovery and refining apparatus. The apparatus allows us to both reduce environmental impact and improve efficiency by recovering ethyl acetate gas emitted by the laminator and distilling and refining it (annual recycling amount: 1,270 kℓ).

Our plant is a designated class-1 management plant in view of energy such as electricity, heat, etc., and has developed appropriate management and inspection procedures, as well as active improvement operations. We achieved our target of energy consumption per production thanks to our ball washing machine, which was implemented in order to improve the heat exchange efficiency of our freezers, and various other energy conservation activities.

In FY 2002 we hope to limit our waste emission per production, which have been on the rise, achieve our PRTR toluene reduction targets, as well as rejuvenate the activities of the “Plant Environmental Committee” in an effort to develop more thorough energy conservation strategies.

Industrial Waste

(year)

Promotion Targets	Actual	Voluntary Target
Emissions per production (t/million yen)	0.343	0.267
Total unusable materials generated (t)	15,700	11,300
Final waste disposal rate (%)	6.5	8.2
Rate of unusable materials generated (%)	40.6	31.1
Recycling rate (%)	26.0	20.2

Energy Conservation

(year)

Promotion Targets	Actual	Voluntary Target
Greenhouse gas emissions (t-CO_2)	46,000	41,600
Energy consumption (kℓ)	17,300	16,900
Energy consumption per production (kℓ/100 million yen)	137	166

Kuki Plant, Ichigaya Operations (publications printing)/1-5 Kiyoku, Kuki, Saitama

Tel: +81-480-21-7200

Established: September 1983

Environmental Conservation Cost

Unit: ¥1,000

Content	Capital investment	Cost
1) Prevention of air pollution	0	15,328
2) Prevention of water pollution	0	48,428
3) Noise prevention	0	0
4) Vibration prevention	0	0
5) Odor prevention	7,309	21,685
6) Prevention of global warming	62,050	163,572
7) Prevention of ozone layer depletion	0	0
8) Reduction, recycling, disposal of waste	0	112,332
9) Environmental management activities	0	2,121
10) Afforestation, beautification, cleaning	0	1,056
11) Other	0	0
Total: Environmental conservation cost	69,359	364,522
Economic benefit related to environmental conservation activities		
1) Gain on sale of recyclable materials	33,300	

Air

Substance	Facility	Actual (Max)	Regulated
SOx [Nm^3/h]	No. 1 Vacuum water heater	less than 0.01	7.31
	No. 2 Vacuum water heater	less than 0.01	7.27
	A-Hot/cold water producer	less than 0.01	15.23
	B-Hot/cold water producer	less than 0.01	15.44
	No. 1 Hot/cold water producer	less than 0.001	7.72
	No. 2 Hot/cold water producer	0.02	7.53
	No. 5 Hot/cold water producer	less than 0.001	7.22
	Waste heat boiler (cogeneration)	0.27	23.54
Dust [g/Nm^3]	No. 1 Vacuum water heater	0.002	0.1
	No. 2 Vacuum water heater	0.002	0.1
	A-Hot/cold water producer	0.002	0.1
	B-Hot/cold water producer	0.003	0.1
	No. 1 Hot/cold water producer	0.003	0.1
	No. 2 Hot/cold water producer	0.005	0.1
	No. 5 Hot/cold water producer	0.004	0.1
	Waste heat boiler (cogeneration)	0.002	0.1
NOx [capacity rate: ppm]	No. 1 Vacuum water heater	80	150
	No. 2 Vacuum water heater	70	150
	A-Hot/cold water producer	30	150
	B-Hot/cold water producer	39	150
	No. 1 Hot/cold water producer	35	150
	No. 2 Hot/cold water producer	31	150
	No. 5 Hot/cold water producer	34	150
	Waste heat boiler (cogeneration)	6.6	150

Water

Substance	Actual (Max)	Actual (Ave)	Regulated
BOD [mg/ℓ]	100.0	10.2	600
COD [mg/ℓ]	74.2	16.0	—
Suspended matters [mg/ℓ]	189.0	10.1	600
n-hexane extracts (mineral oil) [mg/ℓ]	4.9	1.6	5
n-hexane extracts (vegetable oil) [mg/ℓ]	5.0	1.8	30
Iodine consumption [mg/ℓ]	14.2	2.5	220

Release and Transfer of PRTR Chemicals

(t/year)

Substance	Release			Transfer	
	Air	Water	Soil	Sewer	Waste
1,1-dichloro-1-fluoroethane	2.01	0	0	0	0

[Review of Environmental Affairs Manager]

Hirotsugu Yamane
Kuki Plant Manager

Our site is located in the Kiyoku Industrial Park, Kuki, Saitama. The plant has facilities for offset printing, offset rotary printing, letterpress rotary printing, saddle-stitch bookbinding and perfect book binding, and mainly performs integrated production of weekly and monthly periodicals. Since the establishment of the plant we have regularly upgraded our facilities, such that it now boasts the nation’s largest amount of printing equipment under one roof. The plant prints a wide variety of periodicals on a daily basis.

Our efforts towards reduction of environmental impact include efficient use of energy, reduction of industrial waste, which are carried out as in-house projects by each production division or in cooperation with other affiliated companies within the industrial park. We have also installed a cogeneration system to ensure efficiency in energy use and have achieved zero emissions by recycling industrial waste into new resources.

In the future, we intend to reduce energy consumption and CO_2 emissions by putting into practice our anti-global warming plan, reduce waste emissions through our waste product source reduction program, as well as continue our commitment to zero emissions. In respect of our environmental conservation activities, we are making efforts to improve the passing rate for our voluntary standards, which are even stricter than those subject to regulatory compliance, so that we achieve a 100% pass rate.

Industrial Waste

(year)

Promotion Targets	Actual	Voluntary Target
Emissions per production (t/million yen)	0.145	0.131
Total unusable materials generated (t)	4,722	4,416
Final waste disposal rate (%)	0.0	0.0
Rate of unusable materials generated (%)	10.9	10.1
Recycling rate (%)	99.7	99.6

Energy Conservation

(year)

Promotion Targets	Actual	Voluntary Target
Greenhouse gas emissions (t-CO_2)	45,084	11,363
Energy consumption (kℓ)	27,124	26,777
Converted to crude oil per production (kℓ/100 million yen)	127.6	88.89
CO_2 emissions per production (t-CO_2/100 million yen)	211.2	131.12

Kami-Fukuoka Plant, Semiconductor Components Operations (manufacturing of electronic precision parts)/2-2-1 Fukuoka, Kami Fukuoka, Saitama

Tel: +81-49-262-3111

Established: November 1959

Environmental Conservation Cost

Unit: ¥1,000

Content	Capital investment	Cost
1) Prevention of air pollution	0	172,523
2) Prevention of water pollution	2,117	216,895
3) Noise prevention	0	284
4) Vibration prevention	0	0
5) Odor prevention	0	102
6) Prevention of global warming	930	49,547
7) Prevention of ozone layer depletion	0	0
8) Reduction, recycling, disposal of waste	0	281,425
9) Environmental management activities	0	4,693
10) Afforestation, beautification, cleaning	0	4,422
11) Other	0	0
Total: Environmental conservation cost	3,047	729,892
Economic benefit related to environmental conservation activities		
1) Gain on sale of recyclable materials	50,540	

Air

Substance	Facility	Actual (Max)	Regulate
Dust [g/Nm^3]	No. K-1–K-11 Boiler	less than 0.003	0.3
	No. K-21–K-25 Boiler	less than 0.003	0.3
	No. 5 Boiler	less than 0.003	0.1
	No. 6 Boiler	less than 0.003	0.1
	Dryer	less than 0.004	0.2
	Gas turbine	less than 0.003	0.05
NOx [capacity rate: ppm]	F-block vacuum-type freezer	32	150
	L3-block vacuum-type freezer R1	40	150
	L3-block vacuum-type freezer R2	44	150
	No. 5 Boiler	58	150
	No. 6 Boiler	56	150
	Dryer	15	180
	Gas turbine	53	70

Water

Substance	Actual (Max)	Actual (Ave)	Regulated
BOD [mg/ℓ]	67	24.3	600
Suspended matters [mg/ℓ]	86	17.5	600
n-hexane extracts (mineral oil) [mg/ℓ]	1.2	1.0	5
n-hexane extracts (vegetable oil) [mg/ℓ]	2.4	1.9	30
Nitrogen [mg/ℓ]	36	14.2	240
Hexavalent chromium [mg/ℓ]	0.05	0.05	0.5
Copper [mg/ℓ]	0.76	0.22	3
Steel [mg/ℓ]	1.1	0.79	10
Chrome [mg/ℓ]	0.11	0.10	2

Release and Transfer of PRTR Chemicals

(t/year)

Substance	Release			Transfer	
	Air	Water	Soil	Sewer	Waste
Copper salts (water-soluble)	0	0	0	0	120
Nickel compounds	0	0	0	0	98
Chrome and trivalent chromium compounds	0	0	0	0	18

[Review of Environmental Affairs Manager]

Hiroo Nakai
2nd Production Division Manager

Our site is located in southwest Saitama. To the north of the plant lies the Shingashi river, which joins the city center with Kawagoe, once known as little Edo.

Since the establishment of our plant, we have applied printing and derivative technologies to produce super fine processed products such as photomask and lead frames, which play a significant role in the information-oriented society.

We have been promoting environmental efforts mainly through the Eco-Plan Promotion Committee, which was established in 1993 (currently the Environmental Committee), and have been promoting activities that serve to reduce waste products and reduce costs through efficient use of energy.

Our efforts to reduce industrial waste mainly concern the reduction of etching waste solution and wastewater sludge. In FY 2001, we took steps to recycle and reduce waste etching solution by separating iron and copper components.

We have also implemented a number of energy conservation measures, including loss reduction through careful operation management, operation of cogeneration systems, replacement of large boilers with smaller through-flow versions, reduction in unloaded loss of special high voltage transformers.

As a new effort for this year, we intend to aim to realize a recycling-oriented society and go back to the drawing board in search of themes for the reduction of waste products and energy conservation activities, based on the concept that environmental management activities should take into account both global and local perspectives, and help realize “zero emissions” and “zero energy loss” though participation by each and every staff member.

Industrial Waste

(year)

Promotion Targets	Actual	Voluntary Target
Emissions per production (t/million yen)	0.260	0.401
Total unusable materials generated (t)	1,047	1,500
Final waste disposal rate (%)	3.97	5.00
Rate of unusable materials generated (%)	54.7	61.2
Recycling rate (%)	85.7	80.0

Energy Conservation

(year)

Promotion Targets	Actual	Voluntary Target
Greenhouse gas emissions (t-CO_2)	57,119	61,500
Energy consumption (kℓ)	36,180	39,204
Converted to crude oil per production (kℓ/100 million yen)	93.6	99.3
CO_2 emissions per production (t-CO_2/100 million yen)	147.8	155.8

Tokyo Plant, Dai Nippon Ellio Co., Ltd. (printing and processing of metal sheets) 4013 Nakatsu, Aikawa, Aiko-gun, Kanagawa

Tel: +81-46-285-1311

Established: July 1962

Environmental Conservation Cost

Unit: ¥1,000

Content	Capital investment	Cost
1) Prevention of air pollution	0	680
2) Prevention of water pollution	0	2,100
3) Noise prevention	0	0
4) Vibration prevention	0	0
5) Odor prevention	0	7,190
6) Prevention of global warming	0	680
7) Prevention of ozone layer depletion	0	0
8) Reduction, recycling, disposal of waste	0	3,257
9) Environmental management activities	0	1,954
10) Afforestation, beautification, cleaning	0	982
11) Other	0	0
Total: Environmental conservation cost	0	16,843
Economic benefit related to environmental conservation activities		
1) Gain on sale of recyclable materials	10,884	

Air

Substance	Facility	Actual (Max)	Regulated
Dust [g/Nm^3]	1 LB. Furnace	0.037	0.2
	1 LA. Furnace	0.029	0.2
	2 LB. Furnace	0.017	0.2
	2 LA. Furnace	0.022	0.2
NOx [capacity rate: ppm]	1 LB. Furnace	18	230
	1 LA. Furnace	35	230
	2 LB. Furnace	35	230
	2 LA. Furnace	100	230
Formaldehyde [capacity rate: ppm]	1 LB. Furnace	2.3	5
	1 LA. Furnace	0.5	5
	2 LB. Furnace	3.9	5
	2 LA. Furnace	2.2	5

Water

Substance	Actual (Max)	Actual (Ave)	Regulated
BOD [mg/ℓ]	80	24.1	300
COD [mg/ℓ]	30	11.3	300
Suspended matters [mg/ℓ]	30	10.4	300
n-hexane extracts (mineral oil) [mg/ℓ]	1.3	1.0	5
n-hexane extracts (vegetable oil) [mg/ℓ]	13	6.7	30
Iodine consumption [mg/ℓ]	4.8	2.4	220
Hexavalent chromium [mg/ℓ]	0.170	0.09	0.5
Zinc [mg/ℓ]	0.280	0.07	1
Steel [mg/ℓ]	0.320	0.07	3
Chrome [mg/ℓ]	0.200	0.10	2

Release and Transfer of PRTR Chemicals

(t/year)

Substance	Release			Transfer	
	Air	Water	Soil	Sewer	Waste
Ethylbenzene	0.42	0	0	0	0
Xylene	0.81	0	0	0	0
Toluene	0.33	0	0	0	0
Bis (2-ethylhexyl) phthalate	0.70	0	0	0	0

[Review of Environmental Affairs Manager]

Yasuhiro Ishii
Tokyo Plant Manager
Managing Directorr

Our site is located within the Nairiku Industrial Park in the central region of Kanagawa near the Sagami and the Nakatsu rivers, which run from the Tanzawa mountains.

The company was established in 1962 as a steel-plate printing firm. In its 40-year history, the company has been helping customers reduce costs in such fields as home electronics, building materials and vehicle interiors.

As a member of the DNP Group, we have participated in the “Eco-Report System,” established an Environmental Committee, reduced industrial waste, improved energy efficiency, promoted the change towards and expansion of non-chlorinated plastic products. We are currently upgrading our systems in preparation for implementation of ISO 14001 in FY 2002.

By industrial waste reduction, we achieved our targets for waste emission per production, landfill use rate, and recycling rate. In FY 2001, we separated and recovered waste plastic and managed to achieve a substantial reduction in volume and treatment costs by turning them into a valuable commodity. We were also able to recycle wood chips (used as a packing material) into a new raw material. In future, we hope to make a plantwide effort to improve yields for reducing the waste products produced.

We have yet to achieve our targets for energy conservation. Although we achieved some success following the installation of a new boiler, we are still considering options for improving the efficiency of our drying furnace. We have already cleared the government regulations for air and water quality, and have established voluntary standards, which we are currently attempting to attain. We are also making an effort to comply with the regulations of environmental laws and aim to minimize disturbances to local residents.

Industrial Waste

(year)

Promotion Targets	Actual	Voluntary Target
Emissions per production (t/million yen)	0.044	0.048
Total unusable materials generated (t)	185	178
Final waste disposal rate (%)	2.7	3
Rate of unusable materials generated (%)	11.0	10.3
Recycling rate (%)	95.5	92.8

Energy Conservation

(year)

Promotion Targets	Actual	Voluntary Target
Greenhouse gas emissions (t-CO_2)	8,450	7,950
Energy consumption (kℓ)	4,330	4,110
Converted to crude oil per production (kℓ/100 million yen)	105.3	104.2
CO_2 emissions per production (t-CO_2/100 million yen)	205.3	203.2

Dai Nippon Printing Technopack Yokohama Co., Ltd. (manufacturing of paper products)

3500 Ikonobecho, Tsuzuki-ku, Yokohama, Kanagawa **Tel: +81-45-933-1111**

Established: September 1967

Environmental Conservation Cost

Unit: ¥1,000

Content	Capital investment	Cost
1) Prevention of air pollution	0	2,000
2) Prevention of water pollution	0	27,215
3) Noise prevention	0	0
4) Vibration prevention	0	0
5) Odor prevention	0	34,316
6) Prevention of global warming	0	0
7) Prevention of ozone layer depletion	0	0
8) Reduction, recycling, disposal of waste	0	141,746
9) Environmental management activities	19,895	2,935
10) Afforestation, beautification, cleaning	0	1,440
11) Other	0	0
Total: Environmental conservation cost	19,895	209,652
Economic benefit related to environmental conservation activities		
1) Gain on sale of recyclable materials	4,320	

Air

Substance	Facility	Actual (Max)	Regulated
Dust [g/Nm^3]	Incinerator	0.003	0.05
	No.1 Boiler	0.002	0.05
	No.2 Boiler	0.001	0.05
	No.1 Water cooler-heater	0.002	0.05
	No.2 Water cooler-heater	0.002	0.05
	No.3 Water cooler-heater	0.001	0.05
NOx [capacity rate: ppm]	Incinerator	89	150
	No.1 Boiler	63	150
	No.2 Boiler	35	150
	No.1 Water cooler-heater	64	150
	No.2 Water cooler-heater	46	150
	No.3 Water cooler-heater	36	150
Sulfur oxide concentration [ppm]	Incinerator	22	57
Hydrogen chloride [mg/Nm^3]	Incinerator	10	50
Dioxins [ng-TEQ/Nm^3]	Incinerator	0.000098	80

Water

Substance	Actual (Max)	Actual (Ave)	Regulated
n-hexane extracts [mg/ℓ]	28.0	9.6	30
Iodine consumption [mg/ℓ]	101	—	220
Phenol [mg/ℓ]	0.18	—	0.5

Release and Transfer of PRTR Chemicals

(t/year)

Substance	Release			Transfer	
	Air	Water	Soil	Sewer	Waste
Toluene	3.1	0	0	0	87
Di-n-butyl phthalate	0	0	0	0	0
Dioxins [mg-TEQ]	0.011	0	0	0	380

[Review of Environmental Affairs Manager]

Takehisa Nakamura
Plant Manager
Director

Our site is an integrated cardboard container plant. We make everything from exterior packages for food products, confectionary, toiletries and medical products to HACCP*-compatible cartons for liquids such as milk and alcoholic drinks.

Recent years have seen increased customer demand for environmentally conscious packaging that takes into account conservation of resources and ease of disposal, to which we have responded by upgrading our planning, design and manufacturing capabilities.

This year we have acquired ISO 9001 and HACCP certification, improved our product quality, safety and sanitation management, as well as established various programs, including the energy conservation promotion project, the industrial waste reduction project, the yield improvement project as well as promoted a zero emissions environmental project that aims to reduce all waste products, pollutant emissions and energy losses to zero.

As a result of such efforts, we managed to clear most of our targets for industrial waste emission per production and energy consumption per production, etc. The Rate of unusable materials generated, however, increased over the period due to the increase in products requiring advanced processing methods. In the future, we hope to reduce the generation rate of unusable materials by making a review of the production process and materials.

* HACCP (Hazard Analysis Critical Control Point)
A system for ensuring the food safety by performing hazard analysis, identification, establishing critical limits, monitoring procedures, and record-keeping and documentation for every step of food production from harvest to consumption.

Industrial Waste

(year)

Promotion Targets	Actual	Voluntary Target
Emissions per production (t/million yen)	0.558	0.588
Total unusable materials generated (t)	27,700	28,800
Final waste disposal rate (%)	1.16	1.50
Rate of unusable materials generated (%)	29.4	27.6
Recycling rate (%)	81.2	80.3

Energy Conservation

(year)

Promotion Targets	Actual	Voluntary Target
Greenhouse gas emissions (t-CO_2)	35,100	36,000
Energy consumption (kℓ)	13,800	14,600
Energy consumption per production (kℓ/100 million yen)	155	161

Chikugo Plant, Kyushu Dai Nippon Printing Co., Ltd. (manufacturing of packaging)

200 Nomachi, Chikugo, Fukuoka **Tel: +81-942-53-3711**

Established: April 1976

Environmental Conservation Cost

Unit: ¥1,000

Content	Capital investment	Cost
1) Prevention of air pollution	0	1,377
2) Prevention of water pollution	0	528
3) Noise prevention	0	442
4) Vibration prevention	0	0
5) Odor prevention	0	0
6) Prevention of global warming	3,710	38,784
7) Prevention of ozone layer depletion	0	0
8) Reduction, recycling, disposal of waste	6,400	98,916
9) Environmental management activities	0	4,635
10) Afforestation, beautification, cleaning	0	2,040
11) Other	0	0
Total: Environmental conservation cost	10,110	146,722
Economic benefit related to environmental conservation activities		
1) Gain on sale of recyclable materials	9,228	

Air

Substance	Facility	Actual (Max)	Regulated
SOx [Nm^3/h]	No. 1 Boiler	0.56	4.79
	No. 2 Boiler	1.09	5.63
	Incinerator	0.032	6.51
	Hot/cold water producer	0.2	6.58
	No. 1 Power generator	0.21	1.86
	No. 2 Power generator	0.4	0.73
Dust [g/Nm^3]	No. 1 Boiler	0.0046	0.30
	No. 2 Boiler	0.0038	0.30
	Incinerator	0.0021	0.15
	Hot/cold water producer	0.0049	0.30
	No. 1 Power generator	0.027	0.10
	No. 2 Power generator	0.077	0.10
NOx [capacity rate: ppm]	No. 1 Boiler	78	180
	No. 2 Boiler	93	180
	Incinerator	100	250
	Hot/cold water producer	75	180
	No. 1 Power generator	580	950
	No. 2 Power generator	520	950

Water

Substance	Actual (Max)	Actual (Ave)	Regulated
BOD [mg/ℓ]	30	11.8	60
COD [mg/ℓ]	22	8.9	60
Suspended matters [mg/ℓ]	7	4.3	70
n-hexane extracts (vegetable oil) [mg/ℓ]	1	1	5
Nitrogen [mg/ℓ]	31	17.7	60
Phosphorus [mg/ℓ]	5.8	3.2	8

Release and Transfer of PRTR Chemicals

(t/year)

Substance	Release			Transfer	
	Air	Water	Soil	Sewer	Waste
Toluene	585	0	0	0	8
Hexavalent chromium	0	0	0	0	0.1

[Review of Environmental Affairs Manager]

Katsunari Kozu
Chikugo Plant Manager
Managing Director

Our site is located in Chikugo, which lies in middle of the Chikugo plain in the southern part of Fukuoka. Chikugo itself is a garden city, and the warm climate and fertile soil of the region makes it ideal for farming, so there are many orchards, tea plantations and rice paddies, many of which are irrigated by the Yabe river.

Our plant mainly produces flexible packaging, and paper products destined for the Kyushu, Chugoku and Shikoku operations.

We have established our own Environmental Committee, which sets environmental targets for the site in accordance with the DNP Group environmental targets.

In FY 2001 we initiated loss reduction programs as part of the yield improvement project in each section in an effort to reduce industrial waste products and promoted the use of substitutes to poly-vinyl chloride and aluminum.

We also made efforts to conserve energy by establishing an energy management and support system, which is used by all departments. We also started to manage energy consumption per production for each facility and process.

Our environmental conservation efforts included programs promoting the reduction of toluene and switch to non-toluene inks as well as consideration of a flue gas treatment facility in response to PRTR.

Furthermore, in August 2001 we established an ISO 14001 promotion system and established an environmental management system with the aim of acquiring certification in 2002.

In the future we aim to reduce environmental impact and contribute to the establishment of a recycling-oriented society and, through our manufacturing activities, run an effective ISO 14001 management system and implement activities towards the development of an independent environment-oriented plant.

Industrial Waste

(year)

Promotion Targets	Actual	Voluntary Target
Emissions per production (t/million yen)	0.298	0.299
Total unusable materials generated (t)	594	573.3
Final waste disposal rate (%)	3.7	5.5
Rate of unusable materials generated (%)	29.7	27.4
Recycling rate (%)	63.9	63.9

Energy Conservation

(year)

Promotion Targets	Actual	Voluntary Target
Greenhouse gas emissions (t-CO_2)	10,103	9,789
Energy consumption (kℓ)	5,806	5,736
Coverted to crude oil per production (kℓ/100 million yen)	160.9	159
CO_2 emissions per production (t-CO_2/100 minllion yen)	280	218

Environmental Accounting

At DNP, we promote highly effective environmental conservation activities using environmental accounting.

Shin Nihon & Co. Shin Nihon & Co. checks to ensure that the assertions and content of this report, and the content and matters of fact are consistent with one another.

[Purpose]

1. To use environmental accounting as an environmental management tool for the entire DNP Group.
   - Compile and categorize expenses incurred on environmental conservation, as well as their results, and use them as reference to evaluate and identify the effectiveness of environmental conservation activities.
   - Use environmental accounting as reference to determine individual environmental conservation measures and groupwide environmental conservation cost/investments.
   - To continuously improve environmental performance, use environmental accounting as reference to identify the results and the achievement levels of the year's activities.
2. To use environmental accounting as a communication tool with the public.
   - Use environmental accounting as reference to publicize DNP Group's environmental conservation efforts and results.
   - Use environmental accounting as reference to solicit comments from shareholders, customers and local residents, and to get feedback for DNP's environmental activities.

Environmental Conservation Cost

(million yen)

Category	Cost		Investment		Major Efforts	Reference Pages
	FY 2000	FY 2001	FY 2000	FY 2001		
(1) Business Area Cost						
1 Pollution Prevention Cost	2,697	2,267	651	1,313	Changing fuel (to LPG), adding an oily water separation tank and deodorizing equipment	25, 26, 34
2 Global Environmental Conservation Cost	1,255	924	1,226	256	Controlling room temperature and lighting, using inverter-power and introducing cogeneration systems	33
3 Resource Recycling Cost	3,801	3,163	129	79	Sort-and-recycle, zero emissions (using as RPF/cement material)	28, 29
(Subtotal)	7,753	6,354	2,006	1,648		
(2) Upstream/Downstream Cost	267	195			Designing environmentally conscious products, bearing container and packaging recycle costs	40, 41
(3) Administration Cost	1,147	2,044			Cost of ISO 14001 judging and registration fees, environmental measurement costs, cost of preparing environmental reports	16, 34
(4) R&D Cost	2,501	1,704			Research and development of environmentally conscious products and production methods	39
(5) Social Activity Cost	93	12			Planting trees and greenery outside the plant premises, supporting activities of environmental conservation organizations*	49
(6) Environmental Remediation Cost	0	0				
Total	11,761	10,309	2,006	1,648		

* Includes ¥1 million for WWF and ¥40,000 for GPN

Environmental Conservation Equipment

(million yen)

Category	Acquired Price	Accumulated Depreciation	Book Value	Major Environmental Equipment
1 Pollution Prevention Equipment	7,074	4,075	2,999	Dust collector, wastewater treatment equipment, oily water separator, deodorizing equipment, solvent recovery equipment
2 Global Environmental Conservation Equipment	4,971	2,828	2,143	Cogeneration system, inverter, ice thermal storage system
3 Resource Recycling Equipment	4,308	2,778	1,530	Exhaust heat waste incinerator, waste can press machine, dust collector for recovering paper dust
Total	16,353	9,681	6,672	

Ratio of Environmental Conservation Cost to Total Cost

(million yen)

Category	Consolidated Total Cost	Environmental Cost	Percentage of Environmental Cost	Major Environmental Cost
Amount invested in current period	85,096	1,648	1.94%	Solvent and exhaust gas recovery and refining equipment, oily water separation tank, deodorizing equipment, etc.
R&D costs in current period	23,367	1,704	7.29%	Non-vinyl chloride decorative sheets, non-aluminum packaging materials, water-soluble ink, etc.

Basic Matters upon Calculating Environmental Accounting Information

(1) Period Covered: April 1, 2001 through March 31, 2002 (environmental equipment is that appropriated as of March 31, 2002)

(2) Companies Covered: Of the companies included for consolidated accounting purposes, all manufacturing companies in Japan (37 companies, 53 sites), one distribution company and one in-house meal providing company, excluding six trading, real estate sales, teaching material sales, software development and other companies (see pages 4-5)

(3) Unit: All monetary figures are in millions of yen (rounded off to the nearest millions).

(4) Announcement Format: The format has been changed to the Format Comparing Comprehensive Benefit in the Ministry of the Environment "Environmental Accounting Guidelines (Fiscal Year 2002 Version)." Thus, the previously shown details of environmental costs are not shown this year. However, environmental equipment and sales of environmentally conscious products are shown.

(5) Calculation Basis for Environmental Conservation Cost

1 The environmental conservation costs include depreciation expenses for investments. Depreciation is implemented in accordance with corporate tax law regulations.

Item	Pollution Prevention	Global Environmental Conservation	Resource Recycling	Total
Depreciation expense for FY 2001	646	524	384	1,554
Of the above, amount appropriated as investment prior to FY 2000	492	497	378	1,367
Of the above, amount appropriated as investment in FY 2001	154	27	6	187

2 Personnel costs for full-time workers are calculated at cost while personnel costs for workers holding two or more posts are calculated at 1/10 or 1/5 the average personnel cost per person, depending on the worker's assigned duty.

3 R&D costs are the total cost incurred at 10 R&D centers on researching and developing products and manufacturing equipment that have minimal environmental impact.

(6) Calculation Basis for Environmental Conservation Benefits

1 DNP uses consumption per added-value as indicator for resources (energy and water) consumed on business activities, as well as waste materials and CO_2 emissions. The added-value is calculated at the same standards as the "Management Analysis of Japanese Corporations" issued by the Ministry of International Trade and Industry.

2 The recycling rate of waste represents the percentage of the weight of unusable plant-generated materials that were recycled on- and off-site.

3 Benefits of upstream/downstream cost are the benefits of reduced CO_2 emissions at the time of the disposing of container and packaging products.

4 Benefits related to environmental impact during transports are the benefits of reduced CO_2 emissions at the time of product transport by the distribution company that is included in DNP's consolidated accounting.

(7) Calculation Basis for the Economic Benefits of Environmental Conservation Measures

1 Cost-saving benefit was calculated by the formula: (Unit per volume in base period - unit per volume in current period) x business activity volume in current period

2 Business activity volume is the added-value described in (6) 1.

3 Unit per volume is "energy consumption per added-value" or "waste treatment cost per added value."

4 For the base period, the consumption or cost per value is the overall average of the three years prior to previous period. However, in calculating unit per volume in base period, the energy cost was adjusted to current period's price level due to dramatic price fluctuations.

5 While we showed economic benefits for each of our efforts such as "Energy-conservation benefits by cogeneration" and "Benefits of exhaust heat use by incinerators" for FY 2000, for FY 2001, we complied with the Ministry's guidelines (FY 2002 version) and depicted economic benefits as the amount of cost savings adjusted by the business activity volume.

Environmental Conservation Benefit

Benefit	Category of Indicators	Indicators Value			Remarks	Reference Pages
		FY 2000	FY 2001	Difference		
(1) Benefit Related to Business Area Cost						
1 Benefits Related to Resources Input						
Input Energy	Energy consumption (TJ)	18,845	18,702	–143	All energy consumed was converted into average calorific values	32, 33
	Energy consumption per added-value (TJ/100 million yen)	4.40	4.21	–0.19	0.19 TJ was reduced per added value of 100 million yen	32, 33
Input Water	Water use (1,000 t)	15,315	14,343	–972		31
	Water use per added-value (1,000 t/100 million yen)	3.57	3.23	–0.34	340 t were reduced per added value of 100 million yen	31
Input Key Raw Materials	Input amount (1,000 t)	2,481	2,469	–12	Including raw materials for ink and beverages	21
(paper, plastic, metal, etc.)	Amount of unusable materials generated/ input amount (%)	17.7	15.4	–2.3	Excluding unusable materials that do not correspond with the key raw materials	
2 Benefit Related to Environmental Impacts						
Emissions to the Air	SOx emissions (t)	77.2	74.5	–2.7	Calculated from fuel consumed	26
	NOx emissions (t)	621.6	620.4	–1.2	Calculated from input energy	26
	Emissions of environmental pollutants (354 PRTR substances) (t)	8,936	5,115	–3,821	Total of 10 substances subject to be reported	27
Emissions to Waterways	COD emissions (t)	22.6	32.3	9.7	Calculated from the amount of discharged water and average concentration	26
	Emissions of environmental pollutants (354 PRTR substances) (t)	0	9.6	9.6	1 substance (Hydrazine)	27
Emissions of Waste	Unusable materials generated (1,000 t)	646.1	519.4	–126.7	Including unusable materials other than from the key raw materials	28
	Emissions of waste (1,000 t)	133.8	105.0	–28.8		28
	Emissions of waste per added-value (t/1 million yen)	0.312	0.236	–0.076	76 kg of generated waste materials were reduced per added-value of 1 million yen	29
	Recycling rate (%)	71.9	74.2	2.3	Including heat recovered on site	29
	Amount of transferred environmental pollutants (354 PRTR substances) (t)	1,672	2,400	728	Total of 23 substances subject to be reported	27
Emissions of Greenhouse Gasses	Emissions of greenhouse gasses (1,000 t-CO_2)	837.4	833.7	–3.7	Including amounts emitted by incinerators and drying furnaces.	32, 33
	Emissions of greenhouse gasses per added-value (t/100 million yen)	195.4	187.7	–7.7	7.7 t of emissions were reduced per added-value of 100 million yen	32, 33
(2) Benefits of Upstream/Downstream Cost						
1 Benefits Related to Goods Produced by Business Activities						
CO_2 Emissions at the Time of Disposing of Products	CO_2 emissions (1,000 t-CO_2)	480.5	402.3	–78.2		41
	CO_2 emissions/product shipment volume	1.69	1.56	–0.13	0.13 t of CO_2 emissions were reduced per 1 t of products	
(3) Other Environmental Conservation Benefits						
1 Benefits Related to Environmental Impact during Transport						
	CO_2 emissions during product transport (t)	6,069	5,272	–797	CO_2 emissions were reduced by 797 t	45
	CO_2 emissions during transport/ (Transport weight x Transport distance) (t/million t-km)	114	95	–19	19 t of CO_2 were reduced per million t-km	45

Economic Benefits of Environmental Conservation Measures

(million yen)

Benefit		Amount in yen			Remarks	Reference Pages
		FY 2000	FY 2001	Difference		
(1) Increased Sales						
1 Economic Benefits of R&D Costs						
	Sales of environmentally conscious products	63,032	75,731	12,699	20.1% increase from FY 2000 levels	38 - 44
(2) Increased Revenue						
2 Benefits of Resource Recycling Costs						
	Business income from recycling unusable materials	1,140	919	–221	Saleable unusable materials decreased	28, 29
(3) Cost Savings						
3 Benefit of Global Environmental Conservation and Resource Recycling Cost						
	Saving energy costs by energy conservation	–551	1,049	1,600	Energy cost per added value dramatically improved	32, 33
	Saving waste-materials treatment cost by resource conservation	618	917	299	Treatment cost per added value improved by reducing waste generated	

Environmental Conservation Cost and Environmental Conservation Measures

1 While the amount invested in environmental equipment decreased 17.8%, or 358 million yen, from the previous year, about 1.3 billion yen, or 80% of the entire amount, was spent on pollution prevention measures such as deodorizing equipment and solvent recovery equipment.

2 While environmental costs such as business area and R&D costs were generally reduced, environmental management activity costs were increased.

Environmental Conservation Benefit

1 All benefits related to input resources such as energy, water and key raw materials were improved.

2 Indicators related to environmental impacts such as the air, waste materials and greenhouse gasses are steadily improving.

3 While we reduced emissions of PRTR (Pollutant Release and Transfer Register) substances to the air by 42.8%, the volume of materials transferred as waste increased due to inverse contracted recycling.

Economic Benefits of Environmental Conservation Measures

1 Sales of environmentally conscious products increased 20.1% from the FY 2000 levels, meeting the DNP Group's target of a 10% increase from the previous year. The sales of environmentally conscious products accounted for 5.8% of consolidated sales, up from 4.7% in FY 2000.

2 Income from recycling unusable materials decreased 221 million yen due to the reduction in saleable unusable materials, especially waste fluid and waste metals.

3 Benefits of cost reduction are calculated by (7) under Basic Matters upon Calculating Environmental Accounting Information in the preceding page. In FY 2001, despite the added-value increased 9.0% from the base period (three-year average between FY 1998 and FY 2000), we gained economic benefit of substantial cost reductions since energy consumption per production and waste emissions per production improved.

Targets for Activities in FY 2002

In order to strengthen its efforts towards environmental issues, the DNP Group, through its Environmental Committee, revised the Group's targets in March 2002. The main points revised are as follows:

1 Specific targets were set for recycling rate of waste
2 The toluene reduction rate was revised in preparation for PRTR
3 The policy concerning efforts to cleanup ground contamination was clarified
4 The fuel consumption during transport per sales was added as a target under efforts to reduce the impact of transport on the environment

The DNP Group's Environmental Targets

Development and Sales of Environmentally Conscious Products

- Increase sales of environmentally conscious products by 10% on an annual basis

Green Purchasing

- Compared with the total amount of raw materials purchased, increase the amount of goods purchased under the purchasing headquarters' green purchasing standards by 2.5% year-on-year
- Compared with the total amount of general supplies (including office supplies and fixtures), increase the number of products bearing environmental labeling such as the Eco-Mark by 3.0% year-on-year

Reduction of Industrial Waste

Aim to achieve the following targets by March 2006:

- Reduce the waste emission per production by 20% from FY 2000 levels
- Reduce total unusable materials generated by 10% from FY 2000 levels
- Achieve zero emissions at 20 sites
- Reduce the rate of unusable materials generated (total unusable materials generated per total materials input) by 20% from FY 2000 levels
- Achieve the recycling rate (amount of materials recycled per total unusable materials generated) of 80%

Prevention of Global Warming

Aim to achieve the following targets by March 2011:

- Maintain total energy consumption at FY 2000 levels
- Maintain greenhouse gas emissions at FY 2000 levels
- Reduce energy consumption converted from crude oil per production by 15% from FY 1990 levels
- Reduce CO_2 emissions per production by 20% from FY 1990 levels

PRTR

- Achieve groupwide Toluene emissions of 500 t/year by March 2005
- Reduce the release and transfer of chemicals specified as class-1 under the PRTR Law by 50% by March 2006 from FY 2000 levels (excludes Toluene)

Environmental Conservation

Aim to achieve the following targets by March 2006:

- Maintain maximum density of gases listed in regulations on emissions into the air under 70% of regulatory standards
- Maintain maximum density of items listed in regulations on wastewater under 70% of regulatory standards
- Maintain maximum odor levels at site boundaries under 70% of regulatory standards
- Maintain maximum noise and vibration levels at site boundaries under 95% of regulatory standards

Prevention of Ground Contamination

- Implement a guideline for measures to be taken against ground contamination by the DNP Group

Office Environmental Conservation Targets

- Maintain the rate of used paper separated and collected of 65% or higher for the municipal waste

Reduction of Environmental Impact during Transport

Aim to achieve the following targets by March 2011:

- Reduce the CO_2 emission per transport tons kilometer by 5% from FY 2000 levels
- Reduce the fuel consumption during transport per sales by 20% from FY 2000 levels

Environmental Management System

- Expand the number of ISO 14001 certified sites to 30 by March 2006
- Carry out an Eco-Audit at all sites

Milestones of Environmental Activities

1972	Establishes the Environmental Department within the head office to promote pollution prevention measures and communication with local residents
1990	Makes new efforts to deal with global environmental issues by establishing the Eco-Plan Promotion Office within the Environmental Department
1992	Establishes the DNP Group Codes of Conduct and the DNP Group Employee Codes
1992	Establishes the Eco-Plan Promotion Targets, the fundamental voluntary plan based on the Environmental Declaration of the Codes of Conduct, and starts activities by 4 subcommittees
1993	Starts the Eco-Report System, which is part of the DNP Group environmental management system
1994	Remodels and expands the Environmental Department into the Environment & Product Liability Department to strengthen our efforts towards environmental issues, including taking responsibility for the disposal of products we produce
1996	Begins performing the Eco-Audit, the internal environmental audit performed by the Eco-Plan Promotion Office to upgrade the Eco-Report System
1997	Okayama Plant, the Information Media Supplies Operations becomes the first in the printing industry to acquire ISO 14001 certification
1998	Mihara Plant, the Display Product Operations acquires ISO 14001 certification
2000	The Eco-Plan Promotion Office is dismantled and replaced with the DNP Group Environmental Committee to strengthen the system for promoting environmental activities
2000	The affiliate DNP Facility Service Co., Ltd. becomes the first in the world to be certified as a comprehensive system with quality, environment, office safety and HACCP
2000	Okayama Plant, the Decorative Materials Operations acquires ISO 14001 certification
Mar. 2001	Holds the DNP Group Environment Committee meeting (report of activities for FY 2000 and review of FY 2001 Activity Policies)

Activities in FY 2001

Apr. 2001	Releases Eco-Report No. 16 Performs study program for new recruits
May 2001	Performs Eco-Report seminar at sites that are to participate in the Eco-Report System Tokai Dai Nippon Printing Co., Ltd. acquires ISO 14001 certification
Jul. 2001	Performs Eco-Audits at 10 sites
Aug. 2001	Performs Eco-Audits at 4 sites
Sep. 2001	Holds DNP Group Environmental Committee meeting (first half of FY 2001) Performs Eco-Audits at 8 sites
Oct. 2001	Releases Eco-Report No. 17 Performs a training program for employees hired on non-regular basis Performs Eco-Audits at 4 sites
Nov. 2001	Performs Eco-Report seminar at sites that are to participate in the Eco-Report System
Dec. 2001	Sayama Plant, Dai Nippon Printing Technopack Co., Ltd. acquires ISO 14001 certification Performs an Eco-Audit at 1 site
Jan. 2002	Kobe Plant, the Decorative Materials Operations and The Inctec Inc. (Tokyo, Kansai, and Utsunomiya plants) acquire ISO 14001 certification Performs Eco-audits at 9 sites
Feb. 2002	Performs Technical Seminar A Performs Eco-Audits at 9 sites
Mar. 2002	Holds DNP Group Environmental Committee meeting (report of activities for FY 2001 and review of FY 2002 Activity Policies) Ushiku Plant, the Business Form Operations acquires ISO 14001 certification Performs Eco-Audits at 6 sites

Independent Verification Report

Comment of the verifier

[Outstanding Matters]

1. The core usage of four indicators (amount of unusable materials, amount of waste production, amount of consigned waste to the third party, and amount of final disposal) and ratio indicators can be covered overall requirements for waste management. Through the effective use of those indicators, the company has been, successfully, led to reduce its waste emissions unit per production and amount of unusable materials.
2. The environmental management of the company covers not only CO_2 but also all greenhouse gases prescribed on Kyoto Protocol.
3. Regarding chemical materials, the company sets a priority to be reduced and resulted in effective reduction of emissions.
4. The company has been working on to achieve a larger scope of environmental preservation activities, such low prioritized field as collecting some used paper.
5. Same as last year, an environmental representative of the company performs a review and describes a commitment for the disclosure of a site data, in accordance with the objective of the environmental report.
6. Regarding the green purchasing, Purchasing Headquarters has developed an effective system for promoting to purchase eco products, and the employees are putting a lot of effort to implement the system.
7. Regarding eco products, the company is putting an effort not only to develop effective R&D technologies, but also to increase the company sales profit by setting a sales goal of a selected product per each business division.

[Improved Matters]

8. Through some changes of the content and some minor modifications on the environmental report, the objectives of the report become clearer for readers to be understood.
9. By describing input, output and business operation cycle for the company and each business domain, the object and the characteristics of environmental management become clear.
10. Environmental report clarified some important targets and overall annual performance results.
11. For the issue as pointed out in the previous report such that the results of environmental preservation efforts could not be reflected accurately in the performance figures if evaluation is performed in only use of an unit per volume as an indicator. The indicators for the effects of environmental preservation efforts have been improved as follows;
    1. Not only using energy unit per value-added but also energy consumption amount has been added as an indicator.
    2. Not only using waste production unit per value-added but also total waste production volume has been added as an indicator.

[Considerable Issues]

12. Some sites have achieved efficient implementation and operation of environmental management system by incorporating environmental management systems into production management system. Similar implementation would be performed desirably to the other possible site.
13. Implementing an environmental accounting system would be realized an effective environmental information management and also helps promoting the environmental preservation activities of each site.
14. Current environment education for sales personnel through intranet proved its effectiveness, and so there should be extended this education system for all employees.

Independent Verification Report on
" DNP Group Environmental Annual Report for the year ended March 31, 2002"

August 9, 2002

Mr. Yoshitoshi Kitajima,
Chairman of the Board, President and Chief Executive Officer
Dai Nippon Printing Co., Ltd.

1. The Purpose and the Scope of Our Verification

We have applied the procedures enumerated below to the "DNP Group Environmental Annual Report for the year ended March 31, 2002" (the "Report") of Dai Nippon Printing Co., Ltd. (the "Company") and its principal subsidiaries, which are the responsibility of the Company's management. These procedures, which were agreed to by the Company, were performed based on the Shin Nihon & Co.'s environmental assurance scheme. The objective of the procedures is to express an independent opinion on the reliability of the contents of the Report, so we do not express any opinions beyond the contents.

2. The Procedures Performed

We, Shin Nihon & Co., have performed the following procedures to verify that "the Assertions"—introducing the user of the Report to the main point-are to agree with "the Contents" mentioned in the Report, and the Contents are to agree with "the Matters of Fact" of the Company. (It is considered that the characteristic of the environment information contains a fixed error and estimated value.)

As our means, we applied the Propositions, which we agreed upon with the Company, to verify the evidence that is submitted by the Company to prove the above two clauses. In performing the verification procedures, we demanded the presentation of the evidence to satisfy a standard of the verification procedures and performed the following procedures:

(1) The Company prepares Assertions about the Contents.
(2) The Company and we, Shin Nihon & Co., decide the Propositions based on mutual agreement.
(3) We, Shin Nihon & Co., decide verification procedures for each Proposition.
(4) The Company submits reasonable evidence that is sufficient to prove that each Proposition is concluded.
(5) We, Shin Nihon & Co., judge the formation of all the verification for the Propositions based on the evidence for each Proposition in accordance with the verification procedures.

3. The Items Confirmed as the Assertions

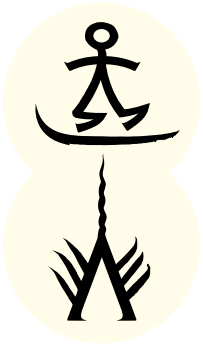
The items confirmed as the Assertions are mentioned on each page of the Report. We verified whether the Assertions agreed with the Contents and the Contents agreed with the Matters of Fact of each item we have for the Assertions, and whether the Contents agreed with the Matters of Fact of the items we do not have.

4. Results of the Procedures Performed

As a result of the procedures performed, we obtained reasonable evidence to show that all the Propositions which were agreed on with the Company are concluded. By obtaining reasonable evidence, we concluded that the Assertions were mentioned appropriately in the Report and that the Contents mentioned agreed with the Matters of Fact of the Company. Therefore, the reliability of the Report was proved by reasonable evidence.

Michio Shibuya
Representative Partner
Shin Nihon & Co.

Michio Shibuya



TOMPA Character Design: Katsumi Asaba

The character symbolizes the support of communication.

The character stands as an emblem of support for printing and communication. As in our last report, we once again used Tompa characters on the cover of our report. The characters on the cover of this year's report stand for "accelerating greenification." Many of the characters used in the TOMPA alphabet express some facet of nature. We plan to introduce many words from the TOMPA alphabet related to the environment.

TOMPA Characters

TOMPA hieroglyphic characters are used by the Naxi, a minority race living in the Lijiang region of Yunnan province, in the People's Republic of China (PRC). The letters are still used on a daily basis, indicating that the language is alive and well.
Joseph Rock, an explorer and member of the National Geographic Society dispatched to the PRC in the 1920's, was the first to focus upon, research and introduce the TOMPA characters to the world. This also inspired art director Katsumi Asaba to expand his research of Asian characters to the TOMPA written language. In Japan, linguistics professor Tatsuo Nishida is known for his academic research in the field.
The TOMPA characters were used by shaman when performing sacred rights while chanting religious scriptures. The old town of Lijiang is listed on UNESCO's World Heritage list.

For further details:

Environment & Product Liability Department

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