Social and Environmental Report 2005

MOTION & CONTROL™
NSK

Did You Know?

Bearings Play a Vital Role

Bearings are mechanical parts that we never normally see or touch. But life without them would be very different. Consider this:
Many of the machines that we use in daily life would not operate smoothly without bearings.
Cars, trains, washing machines—anything with revolving parts—would not work without bearings.
In fact, bearings play a vital and useful role throughout our everyday lives.

Bearings are used in a wide variety of machines, from the engines and transmissions of automobiles or the axles and motors of trains, to the revolving parts of a washing machine. These unseen components support our daily lives.

in Our Everyday Lives

■ The Relationship Between Bearings and Friction

~Bearings support smooth movement through friction control~

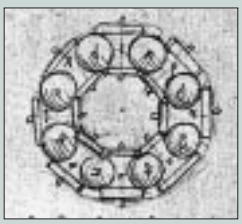
Friction is produced whenever two things touch. It is caused by the meshing of rugged surface elements at the micro level and attractions between molecules. Friction is the force that stops our shoes from slipping when we walk, or allows us to grasp things securely with our hands.

Conversely, friction becomes a drawback when something needs to be moved smoothly. Since ancient times, humans have made rollers from logs to use as sleds for transporting large stones to erect as statues or monuments. Placing logs that revolve under the weight of a heavy object greatly reduces friction when it is moved. This simple device has enabled mankind to overcome friction in a variety of construction applications.

Over the centuries, mankind developed more advanced and sophisticated machines. But the challenges have remained the same: how to reduce friction and lower the required force to make objects go faster and farther, and how to achieve continuous movement? About 500 years ago, Leonardo da Vinci made a number of discoveries related to mechanical devices that led to substantial progress in the field. Many ideas about bearings are found in his drawings.

The twin challenges of reducing friction, and at the same time, using it to our advantage, have provided an important technological theme in mankind's development from ancient times and the Industrial Revolution, right up to the modern day. Today, the relationship between machines and friction is a scientific pursuit in its own right: tribology. Advances by researchers in this field continue to lead to discoveries of new types of machine and related applications.

A relief excavated from the ancient Assyrian capital of Nineveh



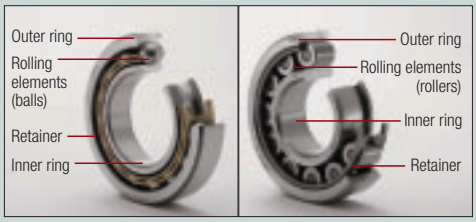
An excerpt from the "Madrid Manuscript I" from the Spanish National Library archives

■ Bearing Mechanisms

Bearings play three critical roles in ensuring smooth movement in machines. First, they support axles. Second, they make rotation and other movement smooth. And third, they determine position.

The photos below illustrate two of the most common types of bearings. Rolling elements revolve in the space between an inner and outer ring. A ball bearing uses metal spheres as these elements, while a roller bearing uses cylindrical elements, although the basic design is the same as that seen in da Vinci's drawings. Bearings facilitate smoother, quieter motion. Small, light, durable, maintenance-free and capable of operating in adverse conditions, bearings pack a host of technical innovations into a compact space.

To reduce friction and ensure smooth rotation, the balls used in ball bearings need to be fabricated to astonishingly high levels of precision. They are some of the most flawless spheres that mankind has yet created.

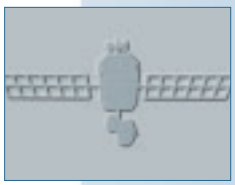


Ball Bearing Roller Bearing

Did You Know?

NSK Provides Critical

Founded in 1916, NSK has been a consistent innovator, developing new and improved technologies and products to support more affluent lifestyles. Using technical expertise cultivated over many years, we aim to satisfy the expectations of society by supplying products that contribute to greater safety and comfort while helping to protect the global environment.



At NSK, we view our role as providing state-of-the-art technology to enable the continued development of advanced machines such as aircraft, satellites, computed tomography (CT) scanners and other medical equipment.

Technology for Daily Life

Advanced Technology for More Advanced Machines

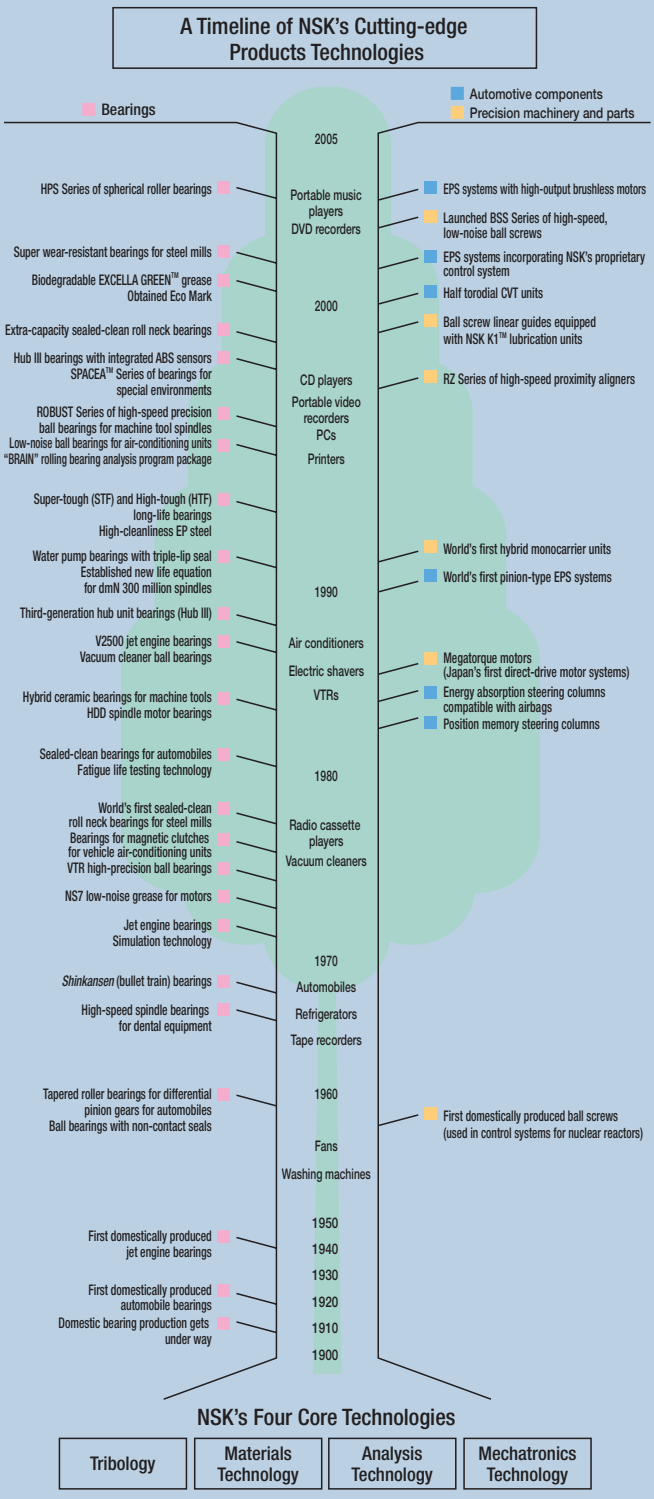
The bearings, ball screws, linear guides and other mechanical parts made by NSK are the central, indispensable components of machines. When installed, they allow the machine or assembly to move in the way it was designed. Breakthroughs in improving bearing performance can enable the evolution of machinery and facilitate the development and commercialization of entirely new types of machines.

The Role Bearings Play in Environmental Protection

Sustainable growth for the whole of human society through reduced environmental impact is an important goal at NSK. Tribology, a technical field we are closely associated with, promises to be an essential area for progress in the 21st century. Bearings have several eco-friendly characteristics. By reducing friction, they lower the energy consumed by the machinery in which they are used. They are also highly recyclable components. Besides contributing to energy saving, bearings also promote resource conservation by helping to make equipment smaller and more durable.

Technology to Support Daily Life

Did you know that NSK's advanced bearings technology has been a critical supporting element in the development of many machines that define the modern era? Safer, more comfortable automobiles; passenger aircraft that can transport hundreds of people at a time; DVD recorders to easily record TV programs: all these machines depend on bearings. Bearings vary widely in application and size—from 2mm to 6m in diameter—and provide a wide variety of advanced functions. With its bearings and other products, NSK supplies a range of advanced technologies to meet modern mechanical requirements that support many aspects of daily life.



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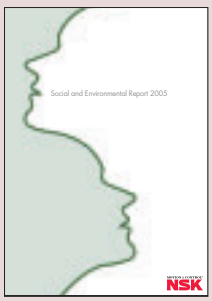
On the Cover

The cover design incorporates NSK's vision of becoming a truly trustworthy company to all stakeholders. To achieve this goal, we will contribute to the well-being of mankind through our products and services, recognizing that human resources are an essential part of this endeavor, and meet the ever changing demands of our business environment.



Editorial Policy

In addition to providing information on NSK's environmental protection activities, this Social and Environmental Report has been created to give the general public a deeper understanding of how we incorporate our social responsibilities into our business operations.

With this year's report, we decided to lead off with a special feature to give readers a better understanding of bearings—components that while rarely seen have helped to drive progress in society.

Additionally, we have tried to present a more dynamic image of NSK this year using numerous mini-articles to explain our relationship with society through the eyes of NSK personnel and their daily activities.

In order to contribute to and coexist with society as a good corporate citizen, we believe it is vital that we promote greater awareness of our company among the general public, whose opinions and support we value. We regard our Social and Environmental Report 2005 as an important means of achieving this through information disclosure. Looking ahead, we plan to further improve the quality of our social and environmental initiatives and make this report more readable and understandable based on the valued opinions of our readers. To that end, please feel free to send us your comments using the contact details on page 56 of this report.

Statements concerning environmental management and performance have been compiled in two sections: "Environmental Report," and "Initiatives at NSK Sites." Every effort has been made to state information related to all the Group's activities in a straightforward fashion with reference to the following two points:

1. Objectivity

To present our environmental activities in an objective manner, this report was compiled in accordance with the "Environmental Reporting Guidelines (2003)" published by Japan's Ministry of the Environment.

2. Transparency

In this report, we have included feedback and similar information concerning environmental matters, reflecting our belief in the importance of maintaining a high level of transparency in our activities.

Scope of Report

The social information in this report primarily focuses on initiatives by domestic business sites of the NSK Group in addition to case studies from overseas operations.

Environmental information covers the activities of NSK, newly spun-off subsidiaries, and manufacturing and distribution subsidiaries in which NSK holds an equity interest of at least 50%. Case studies from overseas operations have been included in addition to achievements in domestic operations. See page 56 for more details.

Period of Coverage

This report covers FY2004 (April 2004 to March 2005). Initiatives at overseas operations cover the 2004 calendar year, while some measures implemented since April 2005 have also been included in the report. Dates have been shown in articles to promote reader awareness.

Date of Issue

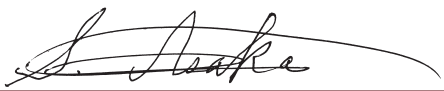
August 2005

(Previous report: July 2004; next report: scheduled for July 2006)

Message From the President

A Company Trusted by Society

Seiichi Asaka
President and Chief Executive Officer



NSK, like numerous other companies, operates worldwide. Global companies now have an increasingly large impact on the operation of social and economic systems. Consequently, people around the world now expect corporations to play a greater role in realizing wealthier, more sustainable societies. These demands reaffirm for us that companies are woven into the social fabric—we have to be fully aware of our responsibility in leaving behind a healthy and vibrant planet for future generations. Constantly guided by this thinking at NSK, we aim to generate even greater value for society with stakeholders as we strive to fulfill our corporate social responsibility (CSR).

In addition to bearings—often called the staple of industry—NSK has consistently supplied an integrated range of automotive- and precision machinery-related products. These products facilitate fundamental functions of machinery such as smooth rotation and highly accurate positioning and control, and thus play a vital role in supporting industry and people's lifestyles. In environmental terms, our products help to protect the environment by minimizing energy loss. Our mission at NSK is to "Contribute to the development of a recycling-oriented society" through initiatives across our business activities—from the development of technologies that reduce the environmental footprint of machinery in use, to boosting the efficiency of resource use during manufacturing processes and the recycling rate at the disposal stage.

Moving forward, NSK will channel its energies into helping people live comfortably, safely and in harmony with the global environment through "Motion & Control." Specifically, we will develop cutting-edge technologies that open the door to new innovations and actively enhance our global supply framework. Such activities will underpin our efforts to reliably deliver high-quality products, technologies and services that satisfy the requirements of specific regions and applications.

Working hand in hand with all our stakeholders, we will strive to continue delivering sustained growth while further enhancing our manufacturing capabilities, which lie at the heart of our business. Our people are the vital ingredient to achieving this goal. NSK places great importance on its workforce. Specifically, we strive to create a corporate culture that encourages employee development and a dynamic workplace environment that motivates our people and gives them job satisfaction. A fundamental issue for management is also how to foster and train the next generation of NSK leaders.

Guided by our corporate philosophy, we have continued to implement CSR initiatives stamped with our unique approach. We have enhanced corporate governance, compliance and risk management over the last few years, and in December 2004, formed a CSR Project Team to develop initiatives more in tune with the NSK way. Everyone at NSK is committed to tackling a range of social and environmental issues based on what we can and must do for society.

August 2005

Working Hand in Hand With Stakeholders

The company's corporate philosophy underpins all our business activities: NSK aims to contribute to the well-being and safety of societies and to protect the global environment through its innovative technology integrating Motion & Control. We are guided by our vision of NSK as a truly international enterprise, and working across national boundaries to improve relationships between people throughout the world. This corporate philosophy is also the foundation of our CSR activities, and is designed to ensure the company builds well-balanced relationships with societies and the global environment, and also develops in harmony with them.

NSK Corporate Philosophy

The NSK corporate philosophy lies at the heart of a system that defines the type of company that NSK aims to be, the kind of image NSK wants to project, and the actions every employee should take to achieve these goals while keeping in mind their relationship with society. This philosophy is supported by four elements: the corporate philosophy itself, management principles, a corporate message, and slogans.

The corporate philosophy specifies the overall aims of NSK in terms of desired corporate activities and the resulting contribution to society.

Management principles at NSK aim to realize the philosophy by specifying the actions and direction required in all aspects of management.

The corporate message brings together NSK's philosophy and activities, projecting a common image to customers, the general public and society in general of where the company is headed, including NSK's approach, ethos and business scope.

Slogans encapsulate everyday policies required to realize the NSK corporate philosophy, and help to create a high level of organizational motivation needed for employees to realize their potential and take action.

NSK Code of Conduct

NSK has formulated an internal code of conduct to clearly define ethical standards of behavior governing the actions of employees and executives in the course of their everyday business activities. The code applies across the NSK Group. It covers activities in all parts of the company in functions ranging from sales and production to distribution and procurement, and also pertains to environment- and information-related issues.

Elements of the NSK Corporate Philosophy System

Corporate Philosophy

NSK aims to contribute to the well-being and safety of societies and to protect the global environment through its innovative technology integrating Motion & Control. We are guided by our vision of NSK as a truly international enterprise, and working across national boundaries to improve relationships between people throughout the world.

Management Principles

1. To serve our customers through innovative and responsive solutions, taking advantage of our world-leading technologies.
2. To provide challenges and opportunities for our employees, channeling their skills and fostering their creativity and individuality.
3. To identify the needs of the times and of the future and to use all of NSK's resources to meet those needs by being versatile, responsive and dynamic.
4. To work together with our employees and contribute to the communities in which we operate.
5. To manage our business from an international perspective and to develop a strong presence throughout the world.

Corporate Message

Responsive and Creative
Motion & Control

Slogans

Beyond Limits, Beyond Today
Beyond Frontiers
Beyond Individuals
Beyond Imagination
Beyond Perceptions
Challenging the Future

NSK has formulated an internal code of conduct to clearly define ethical standards of behavior governing actions of employees and executives in the course of their everyday business activities.

NSK Code of Conduct

- NSK aims to develop a leading global brand by raising corporate value.
- NSK employees always put the customer first.
- NSK employees' actions reflect pride in the NSK brand.
- NSK employees' actions reflect awareness of shareholder value.
- NSK employees always act with awareness that they are members of the global NSK Group.
- NSK employees maintain the highest ethical standards, reflecting the position of NSK as a responsible corporate citizen.

Working With Stakeholders to Generate Social Value

Through Motion & Control, NSK aims to support industry and people's lifestyles, as well as help protect the global environment, by conducting its business globally, developing cutting-edge technologies, and reliably providing innovative products and services.

As a company trusted by society, NSK will focus more intensively on ensuring smooth communication with all stakeholders as part of efforts to deliver sustained growth.

Additionally, NSK will further strengthen its corporate governance framework and promote compliance with business ethics across the Group to ensure it operates in a sound manner and fulfills its role in, and responsibility to, society.

The Supporting Pillars of NSK's CSR Activities

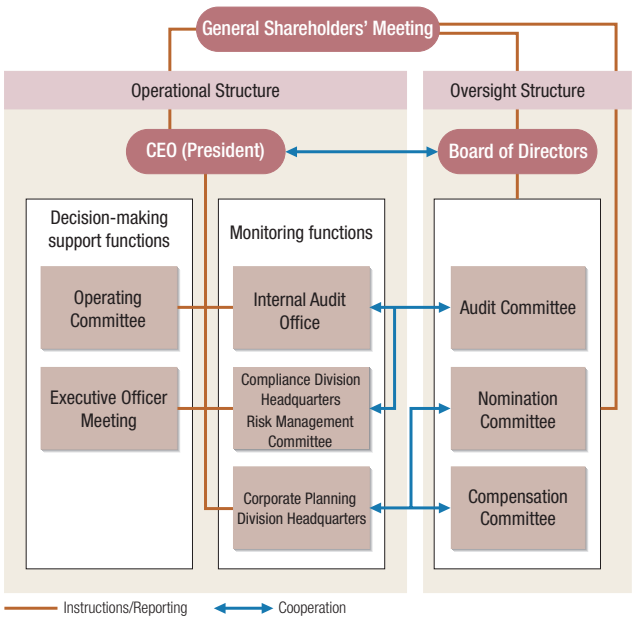
The fundamental spirit of the company's CSR activities is guided by the NSK corporate philosophy. Our CSR goals are additionally supported by robust corporate governance, compliance and risk management activities. Combined with the spirit of our CSR initiatives, these activities form the basis of each and every executive and employee's roles and responsibilities.

Corporate Governance

~Corporate Governance Framework~

The corporate governance framework is designed to ensure sustained growth based on sound operations. This entails running the company in a way that permits mutual monitoring and checking by the company's stakeholders (shareholders, employees, business partners, customers and local communities).

To increase management transparency and soundness, NSK introduced an executive officer system, invited independent directors to sit on the board and took other steps as part of a series of reforms to its management structure in 1999 that pre-empted revisions to Japan's Commercial Code. Subsequently, in 2004, NSK adopted the "Company With Committees System."



* Board of Directors
Responsible for deciding on basic management policies and other important management matters; also acts as supervisory body that monitors business execution by executive officers.

* Audit, Nomination and Compensation Committees
Supporting the Board of Directors, each committee is composed of a majority of independent directors.

* Executive Officers
Appointed by the Board of Directors, executive officers are charged with implementing business strategy within their given area of responsibility.

Reinforcing and Upgrading the Corporate Governance Framework

NSK adopted the "Company With Committees System" in June 2004 to lend greater flexibility to management and increase the effectiveness of oversight functions. In addition to establishing the Audit, Nomination and Compensation committees in accordance with the Commercial Code, NSK abolished its product-oriented organization and replaced it with a customer-oriented organization.

Additionally, NSK reinforced internal audit functions and risk management by reforming its existing system with the establishment of an Internal Audit Office, Compliance Division Headquarters and Corporate Planning Division Headquarters. Steps have also been taken to clarify management responsibility in each business field with the introduction of a customer-oriented business division headquarters system in February 2004.

● Upgrading Internal Control Functions

Internal Audit Office

1. Works in conjunction with the Audit Committee to audit the legality, adequacy and effectiveness of executive actions.
2. Audits internal control systems.
3. Uses audit results to suggest remedial actions and provide advice.
4. Secretariat for the Audit Committee.

Compliance Division Headquarters

1. Plans, formulates, implements and oversees initiatives to ensure compliance with laws, regulations and business ethics.
2. Oversees the Export Control & Screening Office, International Trade and Relations Department, Legal Department and Environmental Control Department.

Corporate Planning Division Headquarters

1. Controls management risk.
2. Plans, formulates, implements and oversees initiatives related to management policy.

● Customer-oriented Business Division Headquarters System

With the move from a divisional framework organized along product lines to a customer-oriented system, Industrial Machinery Bearings, Automotive Products and Precision Machinery and Parts now have clear management responsibility for integrated production, sales and technology systems within their respective business fields.

Compliance

~Compliance Regulations for Business Ethics and Laws~

To prevent accidents and misconduct that run counter to business ethics and legal requirements, the company has incorporated the NSK Principles of Business Ethics, Compliance Regulations, and Disciplinary and Compliance Counseling Procedures in the NSK Business Ethics Regulations. All these regulations and codes apply across the entire NSK Group.

The NSK Principles of Business Ethics, in accordance with the company's corporate philosophy, establish a set of universal business ethics principles that govern the behavior of all NSK employees and executives in a variety of different contexts. The Compliance Regulations specify basic internal rules covering key issues such as anti-trust laws, the prohibition of insider trading, and the handling of intellectual property. NSK has also established procedures and penalties for internal disciplinary action as well as a helpline to offer assistance on compliance-related matters.

Risk Management

~Crisis Management Mechanisms~

NSK is responsible for ensuring a reliable supply of high-quality products to customers. The company must also prevent any damage to local communities caused by accidents at plants and offices. In the event of an accident, NSK must minimize the extent of damage to these communities.

NSK has established a Risk Management Committee under the direct control of the Board of Directors to oversee and manage the wide range of risks that it may encounter in its operations. At the management level, this committee monitors significant risks that could impact on the Group such as major earthquakes, other disasters, environmental contamination and other events. The committee also studies and implements preventative measures, sets up a Crisis Countermeasures Headquarters in the event of a crisis, and supervises information gathering and the implementation of appropriate responses.

CSR Project Team Established

Against the backdrop of a wide-ranging public debate about the relationship between corporations and society, NSK established a CSR Project Team in the Compliance Division Headquarters in December 2004.

This team is charged with enhancing the social value of the NSK Group from a long-term perspective by energizing and upgrading NSK's CSR activities, with an emphasis on compliance. In addition to environmental countermeasures and the provision of more information about how the Group contributes to local communities, the team plans and implements other necessary initiatives internally and externally.

NSK Business Ethics Regulations

[1] NSK Principles of Business Ethics

1) NSK aims to sustain its development as a respected and trusted corporate member of international and local communities with a reputation for honesty and fairness.
2) As a corporate citizen, NSK is committed to observing relevant laws and regulations and to maintaining the highest ethical standards in business activities.

[2] Compliance Regulations (Main Categories)

1) Observation of Anti-trust Statutes
2) Observation of Export Regulations
3) Prohibition of Bribery and Payoffs (entertaining, handling of gifts, etc.)
4) Transactions With Public Institutions and Handling Political Donations
5) Proper Record Keeping and Handling Thereof
6) Prohibitions Against Insider Trading
7) Handling Intellectual Property
8) Prohibition of Illegal and Anti-social Conduct
9) Protection of Company Assets
10) Handling Company Secrets
11) Relationships With Customers
12) Relationships With Suppliers
13) Prohibiting Slander and Libel Against Competitors
14) Cultivation of a Sound Workplace

[3] Disciplinary and Compliance Counseling Procedures

Disciplinary rules

Establishment of compliance helpline

Contributing to Society Through Motion & Control

Bearings, the mainstay product of NSK, are one of the most basic components essential to the smooth and efficient operation of machinery. NSK has come a long way since its founding in 1916 and the manufacture of Japan's first domestically produced ball bearing. Over the years, NSK has developed not only bearings, but also automotive components, precision machinery and parts, and a variety of other products, working side by side with customers in the automotive and electrical equipment industries and a spectrum of other machinery manufacturers. As a comprehensive bearings manufacturer, NSK is committed to continuously delivering products that meet the diverse requirements of its customers, thereby supporting the development of industry through progress in machinery in Japan and the lifestyles of people everywhere.

Corporate Overview

Company Name	NSK Ltd.
Head Office	1-6-3 Ohsaki, Shinagawa-ku, Tokyo 141-8560, Japan
Establishment	November 8, 1916
Capital	¥67.1 billion (As of March 31, 2005)
Net Sales	Consolidated: ¥581.0 billion (Year ended March 31, 2005) Non-consolidated: ¥391.8 billion (Year ended March 31, 2005)
Employees	Consolidated: 20,737 (As of March 31, 2005) Non-consolidated: 3,664 (As of March 31, 2005)
Group Companies	Domestic: 21 Overseas: 54
Shareholders	33,598 (As of March 31, 2005)

Business Overview

Industrial Machinery Bearings

Since shipping Japan's first domestically produced ball bearing, NSK has grown to become Japan's leading bearings business in terms of sales, and is one of only a handful of similar companies worldwide. In addition to supplying an extensive and diverse range of bearings of different sizes and specifications for use in conventional settings, NSK also actively develops and supplies bearings designed for vacuum, high-temperature and other specific environments.

Automotive Products

Approximately half of the sales generated by NSK's mainstay bearings products are derived from the automotive industry. NSK's lineup naturally includes a wide variety of bearings for use in automatic transmissions, steering columns and joints, electric power steering (EPS) systems and other automotive components. NSK continues to supply advanced, high-quality products that help to improve the fuel efficiency, safety, and comfort of cars and the automotive environment.

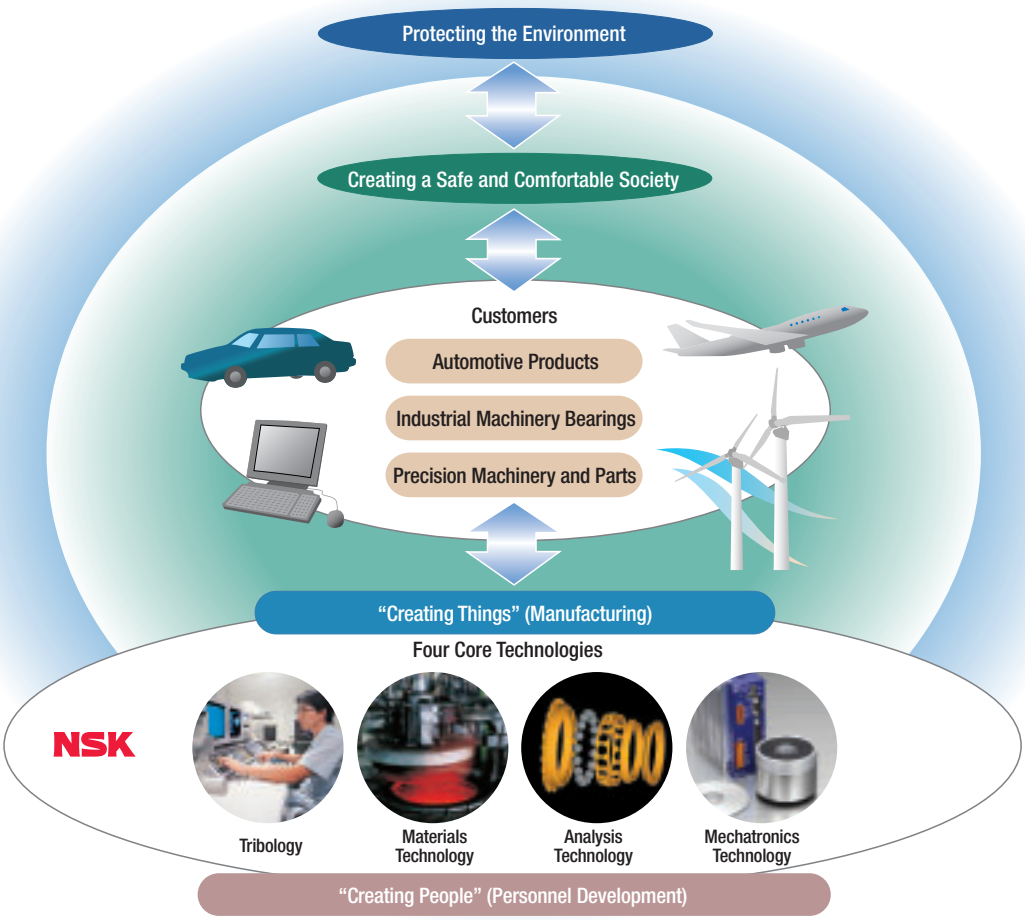
Precision Machinery and Parts

NSK supplies a vast range of cutting-edge products such as ball screws, linear guides, actuators and XY tables that enable high-precision positioning. These products are used as core components in semiconductor and liquid crystal display (LCD) manufacturing equipment, industrial robots, machine tools and other machinery. Recently, NSK has also drawn on its core technologies to develop a number of new products that have won plaudits from customers, including photofabrication equipment for large LCD filters.

Cutting-edge NSK Technology: Contributing to Safety, Comfort and the Environment

Anchored by a corporate culture that attaches great importance to "creating people," NSK boasts cutting-edge strengths in four core technologies used for "creating things."

NSK aims to be our customers' best partner by consistently responding to their needs in the areas of safety, comfort and the environment, and ensuring the rapid development of new products. Specifically, this means building stronger relationships with customers by developing technologies and proposing solutions that accurately meet their needs and supplying products on a timely basis.



NSK's Four Core Technologies

Four core technologies drive progress in Motion & Control at NSK: Tribology, related to the control of friction, Materials Technology, Analysis Technology and Mechatronics Technology.

● Tribology

Unfamiliar to most people, tribology describes a scientific and technological field that combines friction, lubrication and materials. NSK continues to deepen its understanding and mastery of technologies in this area, with the goals of further broadening the scope of application, achieving higher performance and improving the reliability of its mainstay bearings and other products.

● Materials and Analysis Technologies

Materials technologies and analysis technologies support NSK's efforts to increase the performance and reliability of its products. The former focuses on the composition of metal materials, heat-treatment processes and research into new materials such as ceramics and polymers. The latter involves the use of numerous computer simulations, analyses and evaluations to accurately and quickly determine optimal design and maintenance requirements.

● Mechatronics Technology

NSK has expanded the scope of its business by developing a range of unit- and system-based products. Mechatronics, alongside bearing-related technology, was crucial to making this possible. Mechatronics simultaneously encompasses specialized motor technology, sensing and control technology for accurately determining position and technology for transforming these separate elements into cohesive systems.

Working Across National Boundaries to Improve Relationships Worldwide

Through global business activities centered on Motion & Control, NSK uses business sites in Japan, the rest of Asia, the Americas, and Europe—connected by a global network—to deliver products to every corner of the world, supporting people in their daily lives, and contributing to the development of industry.

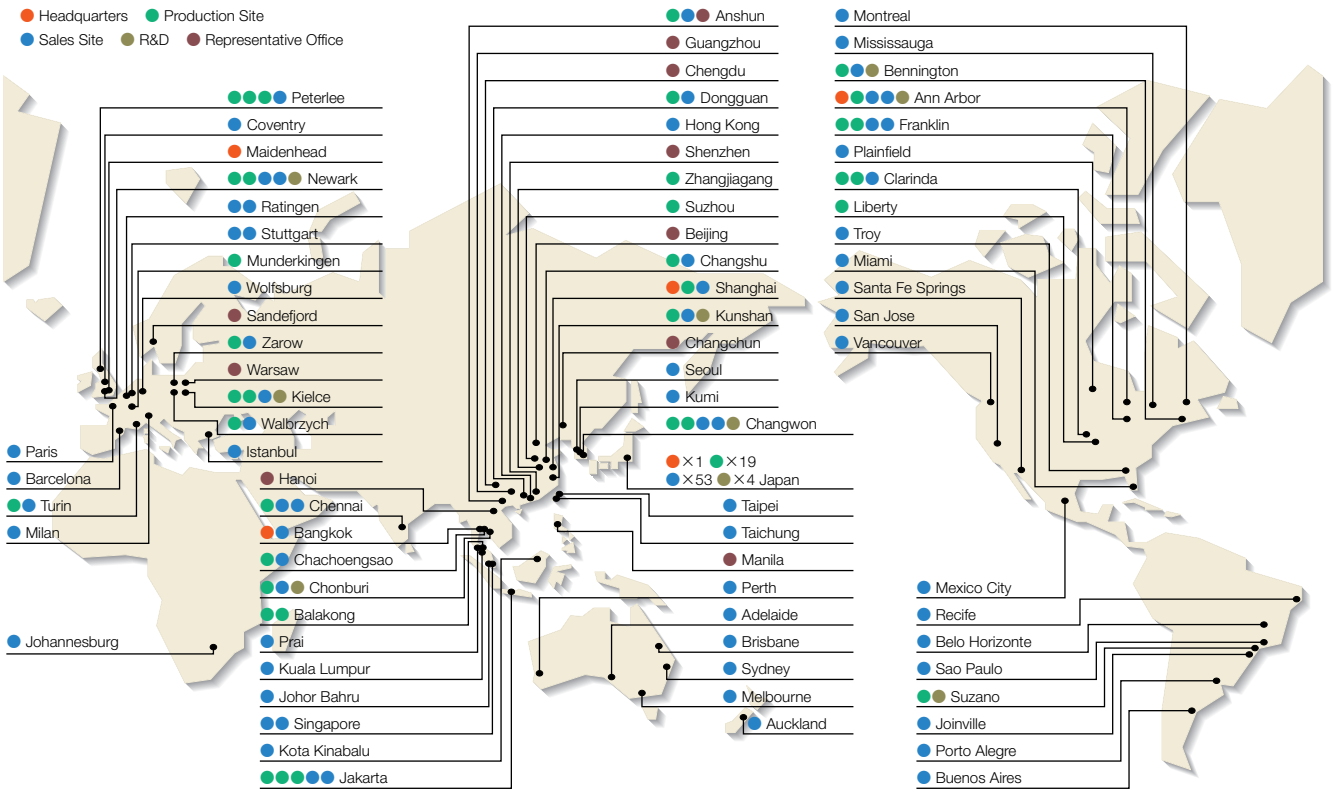
Global Operations Focused on Local Needs

NSK has steadily expanded its reach overseas since the 1960s, guided by the motto "Global operations focused on local needs." Today, NSK has more than 100 business sites worldwide.

Working hand in hand with machinery and equipment manufacturers, NSK aims to quickly develop new technologies and products that meet the specific needs of users and industry in each country and region, as well as ensure reliable supplies at appropriate prices. To achieve these objectives, NSK is reinforcing its global network and working to further improve quality, cost, delivery and service (QCDS) by leveraging the combined strengths of its international sites.

When setting up new overseas production or sales sites, NSK's fundamental policy is to place great importance on local people, including customers, business partners and employees, respect each country and culture, and work to grow and develop with each community.

Around 57% of the NSK Group's workforce is non-Japanese. NSK values the individuality and potential of every one of its employees, pooling their talents to support industry growth and peoples' lifestyles in every country where our products are found. The company also aims to achieve sustainable development and a harmonious balance with the environment. This is our vision of NSK as a truly global enterprise.



Spotlight on China

NSK has built a framework in China incorporating an integrated production, sales and technology system, and sites to supply both the vast and fast-growing Chinese market and overseas customers. In fiscal 2004, NSK established two new plants in the country—one in Suzhou and the other in Zhangjiagang. The company also expanded its Kunshan Plant and opened a Technical Center at the same site. NSK now operates a total of six production sites and technical centers in China.

TIMKEN-NSK Bearings (Suzhou) Co., Ltd. (Suzhou, China)

This joint venture between NSK and The Timken Company (Head office: Ohio, US) established a new plant in Suzhou in the Chinese province of Jiangsu to manufacture tapered roller bearings for cars.

Zhangjiagang NSK Precision Machinery Co., Ltd. (Zhangjiagang, China)

This company was established as NSK's sixth production site in China to carry out bearing pre-processing production.

(Suzhou, China)

(Zhangjiagang, China)

Photo: NSK uses advertising to explain what it does to the general public, providing the basis for stronger relationships with stakeholders. To find out more, turn to page 16.

NSK is supported by numerous people: from customers, business partners and employees, to shareholders, other investors and members of local communities. Working with all these groups, NSK strives to retain its reputation as the industry's best partner by staying true to the ideals of manufacturing and promoting smooth communication with stakeholders.

Social Report

Working Together With Customers and Suppliers

NSK focuses on supplying advanced solutions from a customer-oriented perspective to ensure the highest levels of customer satisfaction. NSK's procurement, production and distribution systems are designed to deliver high-quality products around the world on a just-in-time basis. A powerful supply chain that provides leading levels of aftermarket service supports these systems. Such infrastructure demands extremely close collaboration with customers and strong, cooperative relationships with suppliers.

Fulfilling Customer Expectations as a Trusted Business Partner

VW Supplier Awards, Warsaw (October 3, 2004)
Right: Bernd Pischetsrieder (Chairman, Volkswagen)
Left: Norbert Schneider (CEO, NSK Europe)

Yasuhiro Kusumi
Manager, Automotive Bearings Group, Automotive Division-Headquarters

NSK's automotive products business in Europe has grown along with the increasing presence of Japanese automakers. NSK has also made steady progress in developing products for European manufacturers. The project to supply a third-generation hub unit bearing (Hub III) to Volkswagen (VW) has given extra impetus to the growth of NSK in Europe.

Kusumi: In 2000, we formed our first proactive consulting project team to make sales proposals to potential customers in Europe. Based on the superiority of our Hub III technology, we worked to persuade VW that NSK could play an integral role in the development of their PQ35 strategic platform from initial concept designs. At first, VW was far from convinced that they should entrust the development of a critical wheel-supporting component to NSK—a company that they did not know well—and rely on Hub III, a new technology. We showcased our track record and explained the advantages of our technology, and we also responded quickly with solutions to VW's numerous requests. Eventually all our hard work paid off when VW senior management decided to incorporate our Hub III technology into their new platform. We were also delighted that NSK was selected as a "development supplier" to undertake joint development and production start-up programs with VW.

The next 18 months proved even tougher as we worked to begin the volume production of the required units in an extremely short period. All production, sales and technology departments worked hard in close cooperation to sort out the materials, pre-production processes and other steps and then manufacture and test prototype units. This involved responding quickly and precisely to innumerable requests from VW, but we were able to deliver.

Our project was recognized with a prize in the Development Category of the Volkswagen Group Awards in 2004, and every member of the NSK team was naturally proud to receive the honor.

The success of this project has also boosted NSK's reputation and recognition in Europe, and in the process, transformed our business in that market. We are all keen to continue serving our customers by meeting their expectations to become a trusted supplier and business partner.

Acting as a Development-oriented Supplier

The development of new bearings and other components with higher performance or innovative functions holds the key to the evolution of machinery. In recent years, NSK has become more closely involved with customers such as machinery and equipment manufacturers in making proactive product development proposals from the earliest design stages. Promoting close collaboration with customers, NSK aims to create opportunities to apply its comprehensive technical expertise to help solve the various issues facing customers.

Extending APS Activities to the Supply Chain

The main objective of our Advanced Production System (APS) activities is to raise NSK's corporate value. These activities involve all NSK employees from product ordering through to delivery, and are designed to thoroughly eliminate *muda* (waste), *mura* (unevenness) and *muri* (overburden). Based on this approach, we aim to offer better products that are more competitively priced on a timelier basis.

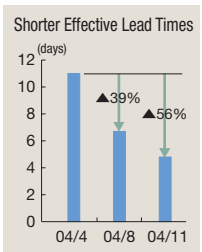
Since fiscal 2001, NSK has extended internal APS activities to its supply chain. NSK dispatches Improvement Support Teams (ISTs) to ten companies each year to provide assistance and create common training programs to help integrate operations at suppliers with those of NSK. These programs are generating concrete returns in the form of higher product quality, shorter lead times and reduced work-in-process inventories.

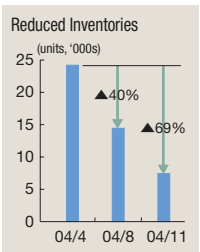
Implementing Joint APS Activities With Suppliers

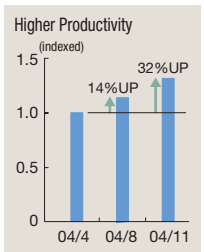
Between April and August 2004, NSK implemented a special four-month APS program with a supplier manufacturing bearing components for NSK. At the supplier's request, a project team made up of staff at the supplier's production facility and the NSK receiving site, together with IST personnel, was set up to create production layouts based on APS concepts and initiate small group activities at the supplier. The overall aim was to improve production control structures in order to boost productivity. The project achieved targeted productivity goals by eliminating production bottlenecks and by introducing single-item flow tracking and other QC improvements such as the *kanban* just-in-time system. With the APS concept firmly in place, the supplier has been implementing more advanced initiatives.

Handmade signs used in the *kanban* system

Results of APS Activities







Working Together With Employees

People are NSK's greatest asset as it strives to develop and grow with society. Cultivating the next generation of NSK leaders and creating a stimulating working environment to motivate employees are both critical management issues. The future growth of NSK also depends on the proper transfer and enhancement of accumulated in-house technical expertise and know-how. For NSK, "creating people" (personnel development) is an inherent element of "creating things" (manufacturing).

Respect for Individual Differences and Potential

NSK personnel evaluations reflect fair assessments of performance as well as the processes that generate results. The core human resource development ethos at NSK is to provide multifaceted support to talented workers willing to take on challenges positively. Another fundamental part of this policy is to provide opportunities for self-improvement to highly motivated self-starting employees.

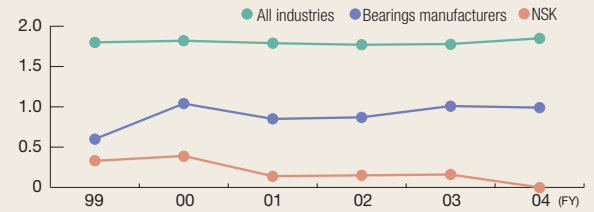
A variety of educational and training programs exist within a systematic framework at NSK. Regular two-way reviews between bosses and subordinates and self-reporting systems govern the evaluation of individual tasks and projects. Positions are advertised internally to find suitable job candidates, while general career support programs include development plans for graduate recruits and career-oriented training programs. In addition, the NSK Management School aims to identify and cultivate the next generation of leaders.

Creating a Safe and Productive Workplace

NSK has instituted progressive health and welfare programs to encourage maximum participation from employees and to ensure the good physical and psychological well-being of workers by actively promoting health. Employee committees have generated impressive results through various worker-led initiatives that aim to raise morale and create a dynamic workplace.

Workplace safety remains the primary management focus, particularly at NSK's manufacturing sites. The NSK Central Occupational Health & Safety Council oversees OH&S programs involving all employees that are designed to create a safety-oriented environment. At the individual site level, senior managers conduct safety audits and institute programs that focus on hazard-prevention measures.

Industrial Accident Frequency



Industrial accident frequency: number of cases of absence from work due to accident per million man-hours

APS Activity Promotion Posters

In an effort to promote APS activities, NSK has created posters for its work sites to highlight major successes achieved through APS in various parts of the company in fiscal 2003.

Making Things Means Investing in People

Hitoshi Okubo
Manager, Internal Audit Office

Katsuhiro Matsumoto
Executive Consultant,
Consulting Division, NSK Human Resource Services Ltd.

With the aim of bolstering NSK's manufacturing capabilities—the basis of any maker's competitiveness—the recently established NSK Manufacturing Center began running courses from May 2005 to encourage the teaching of production skills and provide a systematic framework for related human resources investment. The idea for the center first emerged in a Q&A session at the NSK Management School. We decided at that time to work towards making the concept of "manufacturing capabilities anchored by people" a reality.

Okubo: At the start of our NSK Management School course, which we took in fiscal 2003, our team's basic view was that quality, cost and delivery underpinned manufacturing competitiveness in Japan. But, in a rapidly globalizing market, what did NSK need to do to become more competitive in the future? Intensive discussions on this point impressed upon us the real value of the role played by people in the manufacturing equation. Our feedback to senior management was based on the conclusion that it was vital to maintain and transfer people's skills across the whole of NSK, and that a practical framework was also needed to ensure that this happened.

Matsumoto: Because my role is to enhance APS activities and foster workplace quality improvements, I am well aware of the huge influence personnel skill levels have on manufacturing capabilities. In setting up the NSK Manufacturing Center, I actively explained to each NSK plant the vital role the center will have in supporting NSK's future business activities, persuading these extremely busy sites that I needed the services of their experienced technical personnel to act as educators at the center. This May, classes began for a highly enthusiastic student body made up of future production site leaders. I hope these students will go back to their respective posts after graduating, extolling the virtues of their training. This kind of feedback should make it easier to further enhance the training program in the future.

Glossary: NSK Management School: An internal educational curriculum established in April 2003 to foster the development of business leaders.

Communication With Stakeholders

As a company operating globally, NSK needs to communicate with a wide range of stakeholder groups that have different sets of needs and values. NSK aims to provide appropriate information to stakeholders in a timely manner in order to promote deeper understanding of its policies and business philosophy. NSK also regards smooth and regular communication with the public as important for another reason: to ensure that the company's business practices appropriately reflect the candid opinions and demands of stakeholders.

New Channels to Connect NSK to the Public

Makiko Sakashita
Public Relations Department

In the interests of promoting better communication with stakeholders, NSK conducts advertising campaigns so that people can access accurate knowledge about the company. A lot of thought goes into creating advertising messages as well as campaign execution.

Sakashita: Our view is that constructive relationships between NSK and its stakeholders require a base of accurate knowledge and informed understanding. Unfortunately, our product range features items that most consumers would not directly associate with their everyday lives. We must therefore focus on raising awareness of NSK's name and its business activities.

Advertising is a good way of raising public awareness of NSK. In fiscal 2004, we developed the "Exciting Revolution" advertising campaign, which featured a series of employees talking about NSK. In May 2005, we used May 5, a national holiday, to highlight the ways in which NSK products play an integral but unseen role in many familiar parts of everyday life. Our aim with these campaigns was to make the public feel closer to NSK and more sympathetic to our corporate thinking and activities.

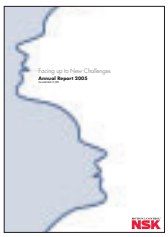
We actually spent a considerable amount of time creating these ads. We took into account a wide range of internal and external opinions as we tried to figure out ways to help people more readily understand NSK, while considering how NSK's image should be presented. We also had to think about how to communicate the ways in which NSK is fulfilling its responsibilities as the leader of Japan's bearings industry.

The May 5 bearing promotional campaign even prompted one housewife to send us a postcard saying that it was the first newspaper advertisement she had seen in a long time that projected a warm, people-oriented image. This made me feel satisfied that we were succeeding in communicating what NSK should mean to the public. We hope to continue improving the level of stakeholder communications by listening to people's opinion to find out what they want and need to know.

Publications About NSK

NSK publishes communications materials in various media to help people gain a better understanding of its business activities and products.

Company Profile



Annual Report

Social & Environmental Report

The World of NSK2004
(CD-ROM)

Online information:

Information on NSK's environmental protection activities has been included on the NSK website since 1998.

URL: http://www.nsk.com
E-mail: eco@nsk.com

Selected Feedback on Social & Environmental Report 2004

- "I liked the integrated use of the "Motion & Control" theme. The glossary terms also made it easier to understand. But the large volume of text made it less accessible. I would like to see more images, photos and graphs."
  (Male, 59 years)
- "The report showed me how NSK's corporate philosophy is focused on safety and environmental issues within an ethical framework. I also learnt how bearings are used widely as critical components in various large and small products."
  (Female, 22 years)
- "I think that information for employees and shareholders needs to be upgraded. Also, an illustration of the overall NSK supply chain from suppliers to customers would aid understanding of green purchasing and its broader relevance to NSK's environmental protection activities."
  (Male, 44 years)

A Responsible Global Corporate Citizen

As part of its efforts to be a responsible corporate citizen, NSK undertakes a variety of activities in Japan and other countries to contribute to local communities where the company is based. Leveraging skills developed in the course of its normal business activities, NSK plans to remain actively involved in a wide range of programs that make meaningful contributions to society. In addition, NSK works to create an internal environment that encourages higher levels of voluntary participation by employees in social activities outside of work.

Sino-Japanese Cooperation: NSK Mechanical Engineering Dissertation Awards

On April 13, 2004, the presentation of the 2nd NSK Awards for Dissertations in Mechanical Engineering took place at Tsinghua University in China. Created as an incentive to promote basic research, these awards recognize outstanding work by Chinese students in mechanical fields. As in the inaugural awards, a total of ten prizes were awarded.

Electro-mechanic Technology Advancing Foundation

The NSK Group established this foundation in 1988 to celebrate the 70th anniversary of the company's founding. Over the past 17 years, the foundation has contributed to society in fields related to NSK's own expertise by providing R&D grants (332 projects), promoting technical exchanges (98 projects) and sponsoring lectures and research seminars (44 projects). The 474 projects to date have contributed to industrial progress by promoting advances in mechatronics research.

China Technical Center (Kunshan)

NSK believes that it is the responsibility of companies with global operations to lay down roots in local communities and contribute to their development. NSK recognizes that creating a transferable culture of skilled fabrication at its development and production bases requires a deliberate approach to technology transfer. Consequently, NSK has established a technical center in Kunshan, China to complement its three other bases in Japan, Europe and the United States. This illustrates NSK's goal to be a leader in the development of tribology and related technology in China.

Advisor Tetsuo Sekiya Made Honorary Citizen of Clarinda, USA

Clarinda is a small town on the southwest edge of Iowa, famous as the birthplace of jazz musician and bandleader Glenn Miller. Each year the town celebrates its famous son in traditional big band style with the Glen Miller Festival. NSK also has a close historical connection with Clarinda, having established a plant in the town in 1975. During the festival held in June 2004 to celebrate the centenary of Glenn Miller's birth, Tetsuo Sekiya (a former head of U.S. operations, CEO and chairman) was made an honorary citizen of the town.

Material Support and Donations to Disaster-stricken Regions

In 2004, the world witnessed a number of major natural disasters, particularly the devastating Sumatra Earthquake Tsunami and, closer to home, a large earthquake that hit Niigata Prefecture in central Japan. Both events not only caused major casualties, but also drastically altered the lives of those spared.

NSK, NSK Group companies, their employees and the NSK Welfare Fund responded with donations of money and supplies through organizations in a number of countries. Total financial donations exceeded ¥40 million.

Working Together With Shareholders and Other Investors

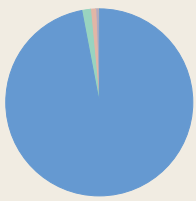
Recognizing the steady return of profits to shareholders and investors as a key mission, NSK strives to raise the quality of its management in terms of soundness, transparency and efficiency, while conducting businesses worldwide based on its core Motion & Control concept. Expanding and advancing these businesses to the next stage is a key priority. To provide the investment community with a deeper understanding of the company, including its current situation and prospects, NSK has been conducting timely and active disclosure. This has been accomplished mainly by establishing a dedicated investor relations (IR) organization, preparing IR tools and holding various related events.

NSK's IR Activities

Investors look at more than a company's operating results when evaluating a potential investment. They also consider the company's objectives, strategies for overcoming challenges, and progress toward goals in the process of making investment decisions. NSK presents clear management policies along with medium- to long-term management strategies and plans, and executes them with precision. Equally vital is ensuring transparency through timely disclosure on the progress of these strategies and plans. In fiscal 2005, NSK held various IR events, including investor presentations on interim and full-year results and on medium-term business plans.

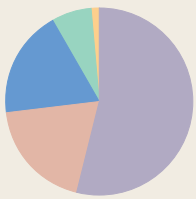
A variety of investor-oriented information is also available on the NSK web site at http://www.nsk.com/eng/ir/index.html.

Ownership Distribution (As of March 31, 2005)



Shareholders: 33,598

Individuals/other	32,602	97.0%
Other Japanese companies	488	1.5%
Overseas investors	302	0.9%
Financial institutions	142	0.4%
Securities firms	64	0.2%

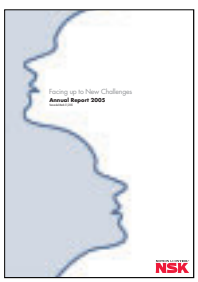


Shares: 551,268,104

Financial institutions	296,924,636	53.9%
Overseas investors	106,030,199	19.2%
Individuals/other	102,527,308	18.6%
Other Japanese companies	38,050,836	6.9%
Securities firms	7,735,125	1.4%

Annual Report 2005

NSK publishes annual reports in Japanese and English to deepen the investment community's understanding of NSK's current position and plans. With "Facing up to New Challenges" as the key message, NSK's Annual Report 2005 outlines our strategies for advancing to the next stage of growth. In the feature section, NSK provides clear explanations of business strategies from the standpoints of products, markets and regions.



Cover of the NSK Annual Report 2005

Socially Responsible Investment (SRI)

Companies that fulfill their obligations to society offer stronger prospects for delivering higher long-term investment returns and sustainable growth. This reasoning has made socially responsible investment (SRI)—an investment approach that values environmental and social contributions of companies as well as economic performance—increasingly important in recent years.

In recognition of high marks earned in areas such as the environment, social contribution, and corporate governance, NSK is currently in the following global SRI indexes—the Dow Jones Sustainability World Index, FTSE4Good Global Benchmark Index, and Ethibel Sustainability Index—and in fiscal 2004 was included in the first SRI Index in Japan, the Morningstar Socially Responsible Investment Index.

http://www.sustainability-indexes.com

http://www.ftse.com/ftse4good/index.jsp

http://www.ethibel.org

http://www.morningstar.co.jp/sri/index.htm

Photo: Wind power generation systems use the power of the wind to reduce CO_2 emissions. NSK is drawing on technologies and experience refined over many years to develop bearings in support of these systems. To find out more, turn to page 34.

Aiming to contribute to a recycling-oriented society, the entire NSK Group is implementing measures to reduce environmental impact. By deepening collaboration with customers and suppliers, NSK is also strengthening measures to reduce such impact throughout the product lifecycle, from product development and design, to the customer-use and end-of-life disposal stages.

Environmental Report

Message From the Environmental Management Director

Working to Reduce Environmental Impact With All Stakeholders

Norio Otsuka
Director, Executive Vice President
(Chairman, Global Environment Protection Committee)

Environmental activities in Japan and other countries around the world are steadily advancing despite facing numerous issues. This progress was highlighted by the enforcement of the Kyoto Protocol on February 16, 2005 to prevent global warming.

Companies, however, should not simply wait for this kind of initiative. Conducting business in harmony with the environment is a corporate social responsibility and a critical issue for ensuring companies' sustainable growth.

NSK is a leading manufacturer of bearings, a machinery component that helps to reduce friction. We also supply ball screws and other products using various bearing-related technologies, as well as electric power steering systems that reduce automobile fuel consumption. NSK is also taking steps to reduce the environmental impact of its own activities, as well as pressing ahead with the development of various technologies for reducing energy loss in collaboration with customers. Through these and other measures, we have been focusing on curbing CO_2 emissions by achieving energy savings. Looking ahead, our mission will be to continue to fully exert the strengths we have developed so far, while further improving the level of environmental initiatives with the aim of contributing to the creation of a recycling-oriented society.

In fiscal 1993, NSK launched its first Voluntary Action Plan centered on its own plants to advance its environmental protection agenda. In fiscal 2001, the second Voluntary Action Plan was unveiled covering all aspects of operations from development to procurement, logistics and packaging. This plan was expanded to include all NSK divisions and subsidiaries. More recently, in July 2004, NSK formed two project teams to oversee chemical substance countermeasures and packaging innovation across the company on the recommendation of the Eco Promotion Team, an advisory body to the Global Environment Protection Committee. Internally, the activities of both project teams will transcend division lines on a company-wide level, encompassing sales, product design, manufacturing, procurement, services and administrative divisions. Externally, NSK will implement various measures together with customers and suppliers via a green procurement network.

To eliminate environmentally harmful substances, NSK has put in place a framework for achieving conformity with the EU RoHS directive one year in advance with respect to bearings, ball screws and linear guides. By fiscal 2004, manufacturing divisions had achieved a 21.2% reduction in CO_2 emissions per production unit compared with levels in fiscal 1990, exceeding their initial targets. This was accomplished through the introduction of cogeneration systems and other actions to combat global warming. In recycling activities, NSK achieved zero emissions at all plants, including those of subsidiaries. In July 2004, the ISO 14001 certification of an NSK subsidiary was expanded to include one additional plant, and as a result, all NSK plants, technology and logistics divisions are now certified. Overseas, three plants in Thailand, Poland and India acquired ISO 14001 certification, brining the total number of overseas sites with ISO certification to 17 out of a total of 20 sites.

Looking ahead, NSK will focus on putting in place a global environmental management system. With the understanding and cooperation of various stakeholders, we will actively implement measures to reduce environmental impact. Our overriding goal is to deliver environmental benefits throughout the entire product lifecycle.

August 2005

NSK and Environmental Management

NSK has formulated an Environmental Policy to ensure that the protection of the global environment, a key tenet of its corporate philosophy, is fulfilled in all of its business activities. This objective defines policies governing environmental activities for the NSK Group. The NSK Environmental Policy is dedicated to the pursuit of eco-conscious products and related technologies, as well as environmentally friendly manufacturing. The policy clarifies NSK's commitment to giving consideration and contributing to the environment as a means of fulfilling its responsibilities as a global corporation.

NSK Environment Policy

Our commitment to environmental management forms the basis of our existence and our pursuits. We are determined to take independent and assertive actions.

1. Overall Goals

To create harmony between people and the Earth by developing environmentally friendly manufacturing processes and technology, such as our tribology friction control technology, using the full efforts of all employees and all divisions in our company.

2. Reduction of Negative Environmental Impact

To establish and continually improve the environmental management system, comply with regulations, prevent pollution and reduce environmental impact.

3. Contribution to Societies

To be a good global corporate citizen, contributing to the social development of countries and communities where we operate, and also to advance the realization of affluent societies that are in harmony with the environment.

Environmental Code of Conduct

1. To reform environmental management organizations by improving operational systems and clarifying chains of responsibility.
2. To develop products and technology that will reduce environmental impact.
3. To tackle environmental protection more aggressively by setting and adhering to high internal standards in addition to complying with laws, ordinances and agreements.
4. To ensure energy and resource conservation, waste reduction, and recycling in all spheres of our business operations.
5. To convert from ozone-depleting and hazardous chemical substances to environmentally friendly alternative substances, and where possible, switch to alternative processes and technologies.
6. To communicate with environmental authorities and local communities in order to receive insightful and constructive options.
7. To contribute to local communities through participation in social environmental activities.
8. To encourage employees to understand our environmental policies and to ensure an environmental mindset in the company through education and internal communications.
9. To disclose the ongoing status of our environmental management activities to the public when necessary.

Originally compiled: December 12, 1997
Last revised: June 27, 2002

Aiming to Contribute to the Recycling-oriented Society

NSK products are integral components in a wide range of machinery, from ordinary home appliances to automobiles, trains, aircraft and rockets, as well as industrial robots, machine tools and more. In addition to reducing the direct environmental impact of manufacturing and other activities, NSK seeks to develop products that help conserve resources and energy when used in conjunction with customers' machinery in various social settings, after they have been delivered and incorporated as parts. Consideration is also given to developing products that are easy to recycle at the end-of-life disposal stage. The overriding goal is to maximize environmental benefits while reducing the impact of products in every stage of the product lifecycle.

Product Design and Development Stage

In this stage, NSK is focusing on deepening communication and working closely with customers to develop environmentally friendly products. The idea is to maximize the environmental benefits of products, mainly in terms of energy and resource conservation, when they are used by customers as part of their machinery. In the manufacturing stage, NSK is also developing environmental protection technologies involving environmentally friendly manufacturing techniques that make processing easier, improve raw material yields and achieve other goals. In fiscal 2004, NSK registered 17 more products and technologies that met its own environmental standards, for a total of 108.

Manufacturing Stage

At NSK, most energy and natural resources are consumed, and most industrial waste and other by-products generated, during the manufacturing stage. Acknowledging this, NSK sees the manufacturing stage as having the most profound effect on the natural environment, directing Group activities towards measures that target energy, waste, recycling and environmentally harmful substances.

In fiscal 2004, NSK Micro Precision Co., Ltd. and NSK Needle Bearing Ltd.'s Takasaki Plant attained zero emission status, resulting in zero emission status for all Group plants in Japan.

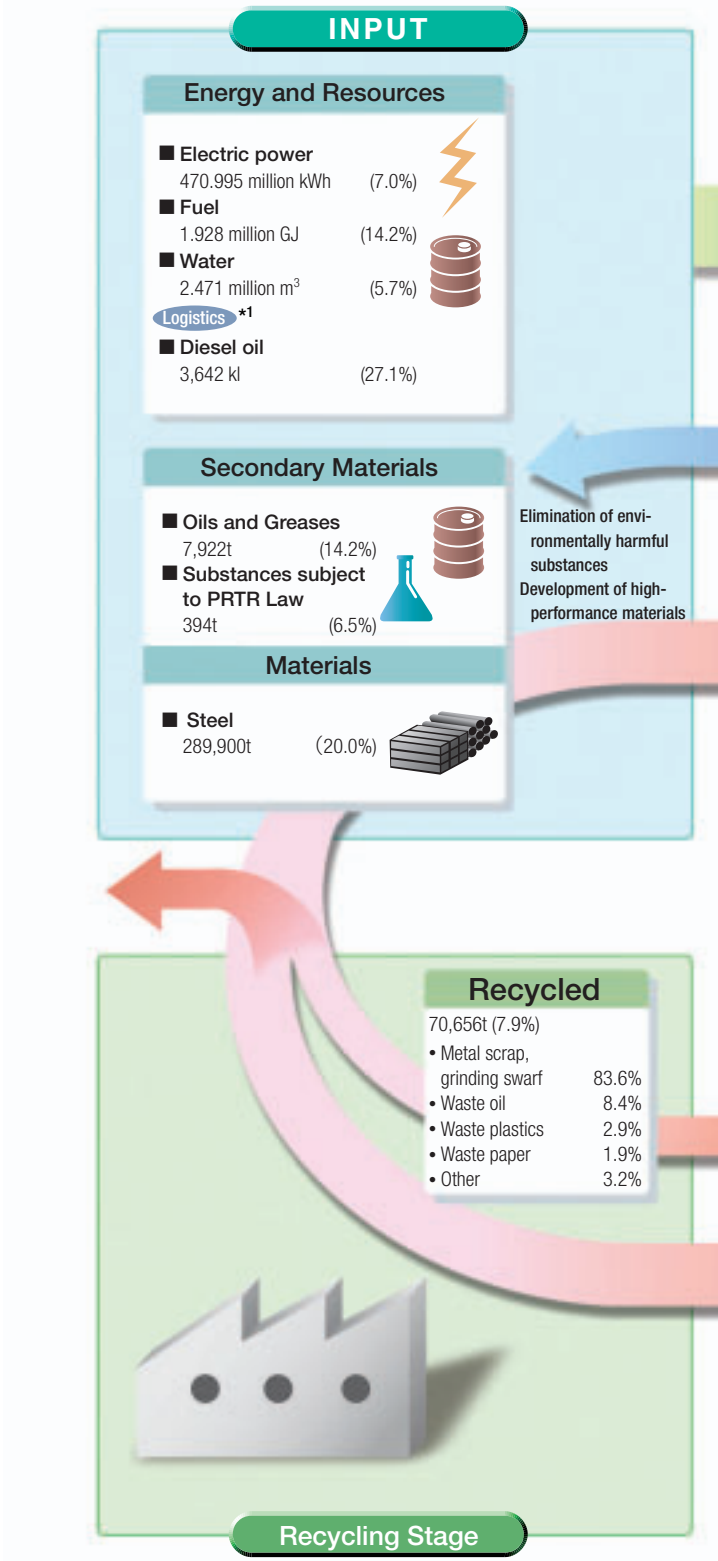
Utilization Stage

NSK products are installed in machines used by customers, where they help to reduce environmental impact mainly by saving resources and energy. These products include bearings for motors used in home appliances such as vacuum cleaners and washing machines, as well as electric power steering systems for automobiles. From the product design stage onward, NSK works to deliver substantial environmental benefits, focusing on products that are lightweight, deliver lower torque and have a longer operating life, as well as reducing noise and vibration.

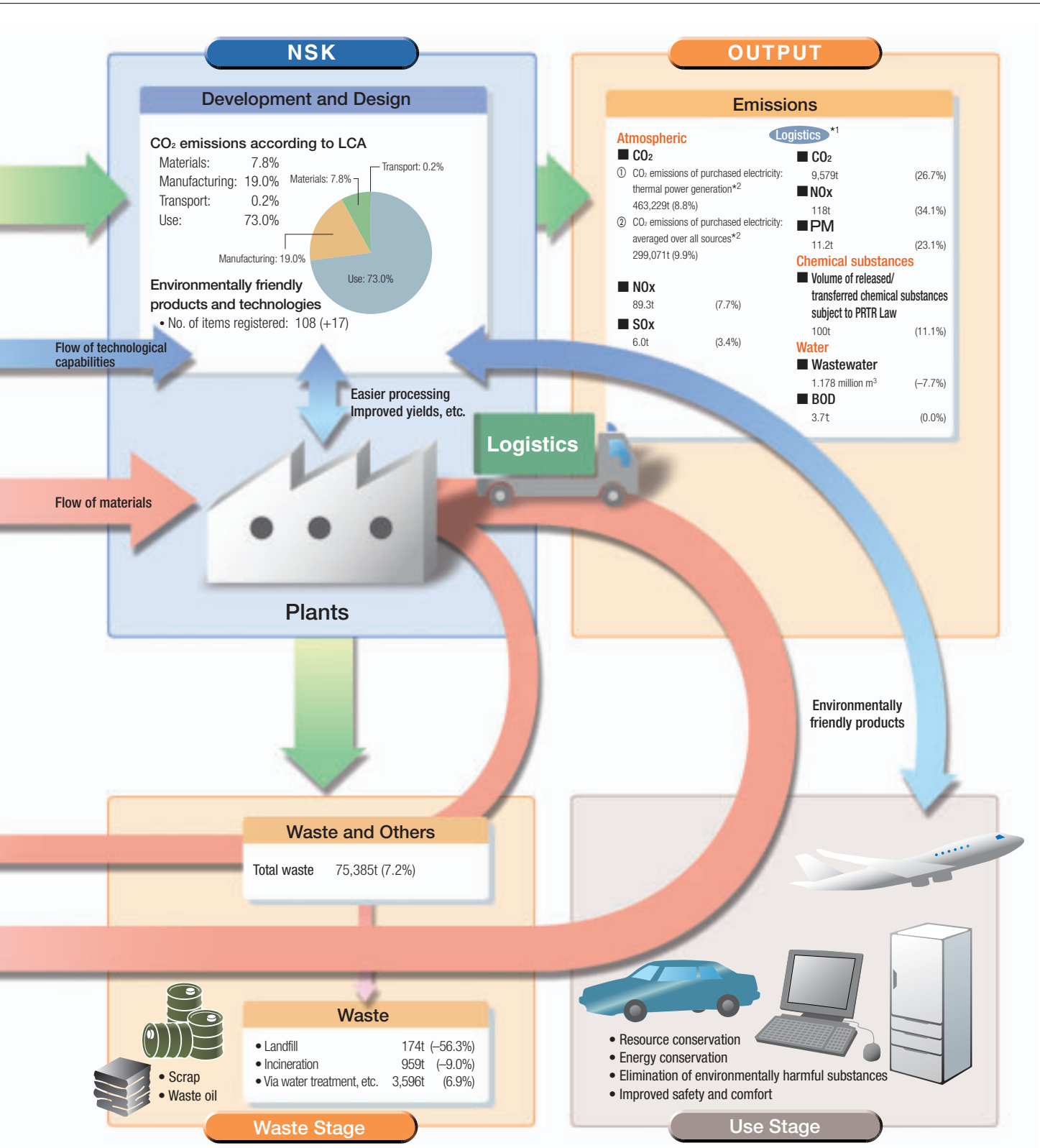
Waste and Recycling Stages

Bearings, NSK's flagship product, are largely composed of steel materials. At the end of their useful life, bearings, along with the machines in which they are installed, are converted to scrap, to be recycled as new steel materials. This characteristic makes bearings superior products in terms of recyclability. To improve this attribute further and reduce environmental load, NSK is taking steps to eliminate the trace amounts of heavy metals found in coated plating for components and using biodegradable grease, among other steps.

Going forward, NSK will continue to strive to improve the level of its initiatives across the entire Group to contribute to the development of a recycling oriented society. This will be accomplished through efforts to help reduce the overall environmental impact of human activity with NSK products, in addition to implementing environmental measures at NSK plants. At the same time, environmental initiatives will be expanded to include NSK subsidiaries, overseas plants and other sites.



- Figures in parentheses represent year-on-year comparisons.
- Performance data compiled from NSK, newly spun-off subsidiaries, manufacturing-related subsidiaries in which NSK holds an equity stake of 50% or more, and a logistics-related subsidiary.



*1 The scope of logistics data has been expanded to include 11 logistics contractors, compared with six previously.

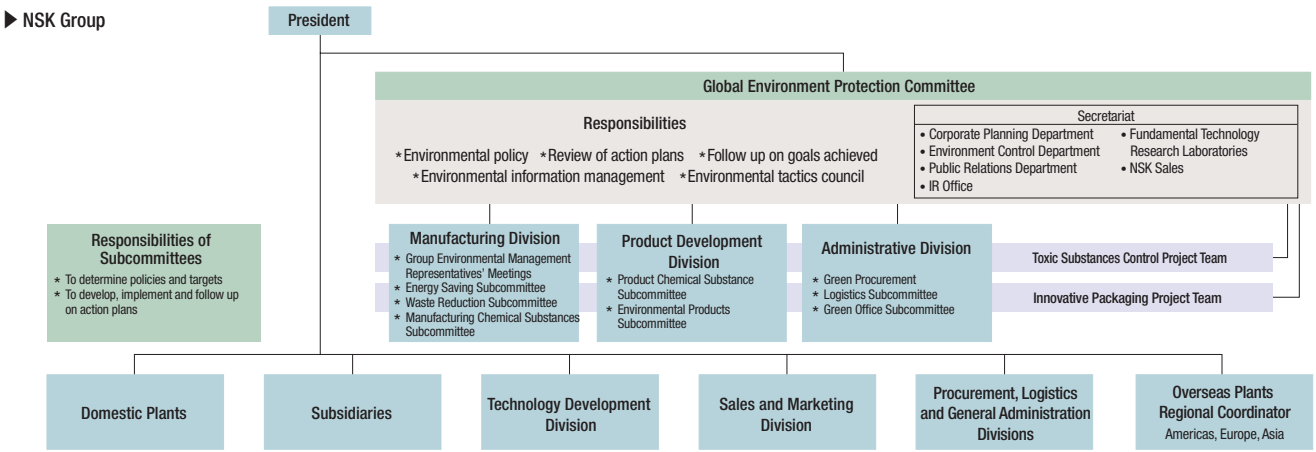
*2 These figures represent estimated CO_2 emissions from the generation of electricity used by NSK. Figure ① represents thermal power generation, while figure ② represents an average for various sources, including hydroelectricity and nuclear power.

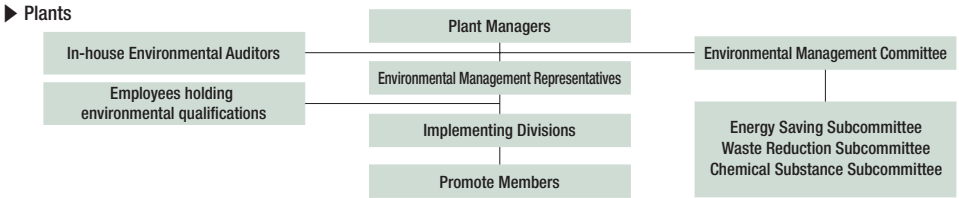
Environmental Management Organization

In April 1993, the NSK Group established the Global Environment Protection Committee. Building on the momentum of its forerunner, the Committee on the Comprehensive Management of Fluorocarbon Regulations, this committee conducted environmental protection activities that mainly targeted manufacturing processes. From 2001, however, NSK unveiled plans to switch to a new company-wide organizational framework for environmental activities, and began promoting environmental management from the perspective of helping to realize a recycling-oriented society. In July 2004, NSK formed two project teams to oversee chemical substances countermeasures and packaging innovation across all divisions, with the aim of actively responding to social needs and reinforcing activities in these areas.

Global Environment Protection Committee and Promotion Framework

The Global Environment Protection Committee is charged with deliberating and deciding Group-wide environmental policies, objectives and initiatives, as well as following up on progress toward goals. At the most basic levels of the organization, specialist subcommittees are installed in various divisions to promote environmental protection efforts across the entire company. Each business site also has an Environmental Management Committee. Chaired by the Plant Manager, this committee is responsible for formulating environmental policies for each site in line with Group-wide environmental guidelines. Responsibility for promoting activities under this structure lies mainly with Environmental Management Representatives. NSK also uses environment liaison meetings as a means of spreading the word on its environmental policies among subsidiaries and as a forum for exchanging related information. This is just one more way in which NSK is advancing environmental activities throughout the entire Group.





History of Activities by the Global Environment Protection Committee

(FY)

Category	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Voluntary Action Plans	1st Voluntary Action Plan								2nd Voluntary Action Plan			
Global Warming Prevention Measures	1st plan				2nd plan				3rd plan			
Waste and Recycling Measures	1st plan		2nd plan		3rd plan				4th plan		Toxic Substances Control Project Team	
Measures for Hazardous Chemical Substances: Chemical Substance Management		Establishment of chemical substances management system for products containing substances with high-environmental impact						Establishment of a manufacturing processes management system				
Measures for Hazardous Chemical Substances: Ozone-depleting Substances	Elimination of cleaning chemicals from all sites							Reduction of specified refrigerant CFCs				
Measures for Hazardous Chemical Substances: Chlorinated Solvents	Elimination of trichloroethylene	Elimination of dichloromethane from NSK sites						Elimination of dichloromethane at subsidiaries			Completed	
Measures for Hazardous Chemical Substances: Dioxins					Elimination of incinerators from all sites			Conversion to chlorine-free machining oils				
Measures for Hazardous Chemical Substances: PRTR Management					Participation in pilot project				Reduction plan			
Compliance/Environmental Risk Management Measures	Legal compliance	Environmental risk measures/Reduction of environmental impact									Innovative Packaging Project Team	
Logistics Measures	Elimination of PVC and polystyrene foam packaging					Promotion of returnable packing materials	Automotive committee		Logistics subcommittee			
Product Measures									Products subcommittee/LCA introduced		NSK Green Procurement Standards revised (third version)	
Procurement Measures									Implementation of green procurement and green purchasing	NSK Green Procurement Standards revised (second version)		
Office Measures									Green office subcommittee			
Establishment of Environmental Management System: NSK Environmental Policy					Policy formulated					Policy revised		
Establishment of Environmental Management System: ISO 14001 Certification					NSK domestic sites			Subsidiaries/overseas operations				
Establishment of Environmental Management System: Environmental Accounting							Introduction of environmental accounting					
Establishment of Environmental Management System: Environmental Auditing		Compliance audit	Performance audit		System audit and support		Audit of subsidiaries					
Establishment of Environmental Management System: Measures by Subsidiaries							Environmental meetings		Action plans		Published Social and Environmental Report	
Disclosure of Environmental Information					Launch of Website		Status report published in annual report		Published environmental reports			

Voluntary Action Plans

Since 1993, NSK has enacted Voluntary Action Plans, focused primarily on manufacturing divisions, to advance its environmental protection agenda. Today, the scope of these plans is company wide, with NSK taking steps to successfully complete its Secondary Voluntary Action Plan encompassing fields such as development, procurement and distribution. Since 2001, NSK has established and pursued common Group-wide objectives in this area in conjunction with its subsidiaries.

Steady Implementation of Action Plans Across the Group

Up to and including fiscal 2004, manufacturing divisions promoted the installation of cogeneration systems and other measures as part of efforts to tackle global warming. These and other actions enabled NSK to outstrip its original objectives, reducing CO_2 emissions per production unit by 21.2% compared with fiscal 1990. NSK also revised the *NSK Green Procurement Standards* and carried out seminars at six business sites across Japan in response to more stringent regulations at its procurement divisions concerning environmentally harmful substances.

In July 2004, the ISO 14001 certification of an NSK subsidiary was expanded to include one additional plant, and as a result, all production bases in Japan are now certified. Moreover, all NSK's subsidiaries have achieved zero emissions, meaning the entire NSK Group has now attained zero emissions status.

Guided by a shared policy, overseas NSK sites are tackling issues such as global warming, waste disposal and chemical substances.

Action Plans at NSK and Spun-off Subsidiaries

Category		Mid- to Long-range Goals	Performance in FY2004	Evaluation
Development		To create environmentally friendly products	Number of registered environmentally friendly products and technologies: 108 (increase of 17 year on year)	○
		To reduce the use of environmentally harmful substances	Established framework for supplying RoHS-compliant bearings	○
Manufacturing	Anti-Global Warming Measures	To reduce CO_2 emissions and energy consumed per production unit by 23% by FY2010 (base year: FY1990)	Reduced CO_2 emissions per production unit by 21.2% (Base year: FY1990)	○
	Waste and Recycling Measures	To achieve a recycling rate of at least 98% by FY2010	Achieved recycling rate of 94.2% Continuing to maintain zero emissions (Landfill waste ratio: 0.03%)	○
	Environmentally Harmful Substance Measures	To eliminate ozone-depleting substances (Refrigerant-use CFCs and halon-based fire extinguishers) by FY2005	Decreased refrigerant CFCs by 80% and halon-based fire extinguishers by 58% (Base year: FY2000)	○
		To reduce the use of products containing PRTR-designated substances and the number of machining oil products with chlorine-based additives by 50% by FY2005 (Base year: FY2000)	Reduced the number of products containing PRTR-designated substances by 35%, and the number of machining oil products with chlorine-based additives by 62% (Base year: FY2000)	○
Logistics Measures		To reduce CO_2, NOx and PM emissions during distribution	Emissions of CO_2, NOx and PM increased 26.7%, 34.1% and 23.1% year on year, respectively	△
		To promote environmentally friendly packaging (Reduction of packaging materials)	Recycling of plastic boxes: Used in product transport, 51.6t; Used during processing, 2.8t	○
Green Procurement		To adopt green procurement standards	Held seminars on revised green procurement standards after reviewing methods for managing environmentally harmful substances and other issues	○
		To adopt guidelines for green purchasing	Continued implementation	○
Green Office Activities		To improve awareness of environmental conservation	Ran a series of feature articles in the NSK Group News internal newsletter and implemented training programs for new employees	○
		To reduce the volume of paper used and promote sorting of waste material and energy saving	Reduced electricity consumption by 42%, however, paper consumption increased by 5.6% (year-on-year comparison)	△

*The scope of logistics data has been expanded to include 11 logistics contractors, compared with six previously.

Action Plans at NSK Subsidiaries

Category	Mid- to Long-range Goals	Performance in FY2004	Evaluation
Environmental Management	To acquire ISO 14001 certification by FY2003	Acquired ISO 14001 certification at all domestic production bases.	○
Global Warming Prevention Measures	To reduce CO_2 emissions per production unit by 1% annually	Reduced CO_2 emissions per production unit by 7.9% (year-on-year comparison)	○
Waste and Recycling Measures	To achieve a recycling rate of 98% or more by FY2010	Achieved recycling rate of 93.4%	○
	To achieve zero emissions by FY2004	Achieved zero emission status company wide	○
Environmentally Harmful Substances Measures	To eliminate ozone-depleting substances (Refrigerant-use CFCs and halon-based fire extinguishers) by FY2005	Decreased refrigerant-use CFCs by 62% and halon-based fire extinguishers by 98% (Base year: FY2000)	○
	To reduce the number of machining oil products with chlorine additives by 50% by FY2005 (Base year: FY2000)	Reduced the number of machining oil products with chlorine additives by 48% (Base year: FY2000)	○

○: Indicates target achieved △: Indicates an 80% achievement of target ×: Indicates target unachieved

Glossary

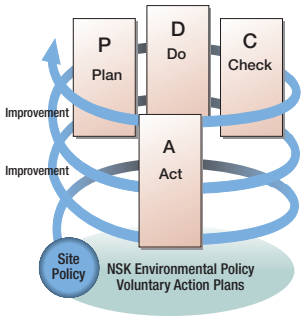
RoHS Directive: A directive issued by the European Parliament and the European Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

Auditing Methods and ISO 14001

Environmental conservation activities are a corporate social responsibility and are vital to a company's sustainable growth. To this end, the NSK Group has worked to acquire ISO 14001 certification, the internationally recognized standard for environmental management systems. In fiscal 2004, ISO 14001 certification was expanded to include one additional domestic business site of an NSK subsidiary, and as a result, all NSK's production bases in Japan are now certified. Overseas, three business sites acquired ISO 14001 certification, bringing the total number of certified sites to 17 overseas.

PDCA Cycles and Improved Performance

Each business site, based on NSK's corporate philosophy and environmental policy, is responsible for independently formulating its own environmental policies suited to its location, products manufactured and other aspects of its business operations, and implementing an appropriate PDCA (Plan, Do, Check, Act) cycle. Ongoing organizational improvements are made through regular audits that confirm the system's implementation status and environmental performance.



● System Audits

Internal audits are an essential part of NSK's environmental management system. Performed once a year, these audits help to improve the system and ensure that the PDCA cycle is properly implemented. An external certification body also conducts an annual examination or a 3-year renewal examination, providing an objective viewpoint for evaluating the performance of the system.

● Performance Audits

The subcommittees under the Global Environment Protection Committee (Energy Saving, Waste Reduction and Chemical Substance Management subcommittees) carry out regular checks to confirm matters such as performance results and legal and regulatory compliance.

Fostering and Training Internal Auditors

To raise the skill level of internal auditors and increase understanding of environmental management systems among its employees, NSK promotes external seminars each year as part of its environmental education program. These and other events are designed to increase the number of internal auditors and train employees in internal audit procedures. In total, 400 people have been trained through these seminars, 50 of those in fiscal 2004.

ISO 14001 Certification

● Domestic Sites

Following the acquisition of ISO 14001 certification by NSK and its newly spun-off subsidiaries, NSK promoted a certification drive targeting NSK subsidiaries. In fiscal 2004, NSK Needle Bearing Co., Ltd. expanded its ISO 14001 certification to include its Takasaki Plant in July 2004, and as a result, all NSK's targeted production sites and logistics companies in Japan are now certified.

● Overseas Sites

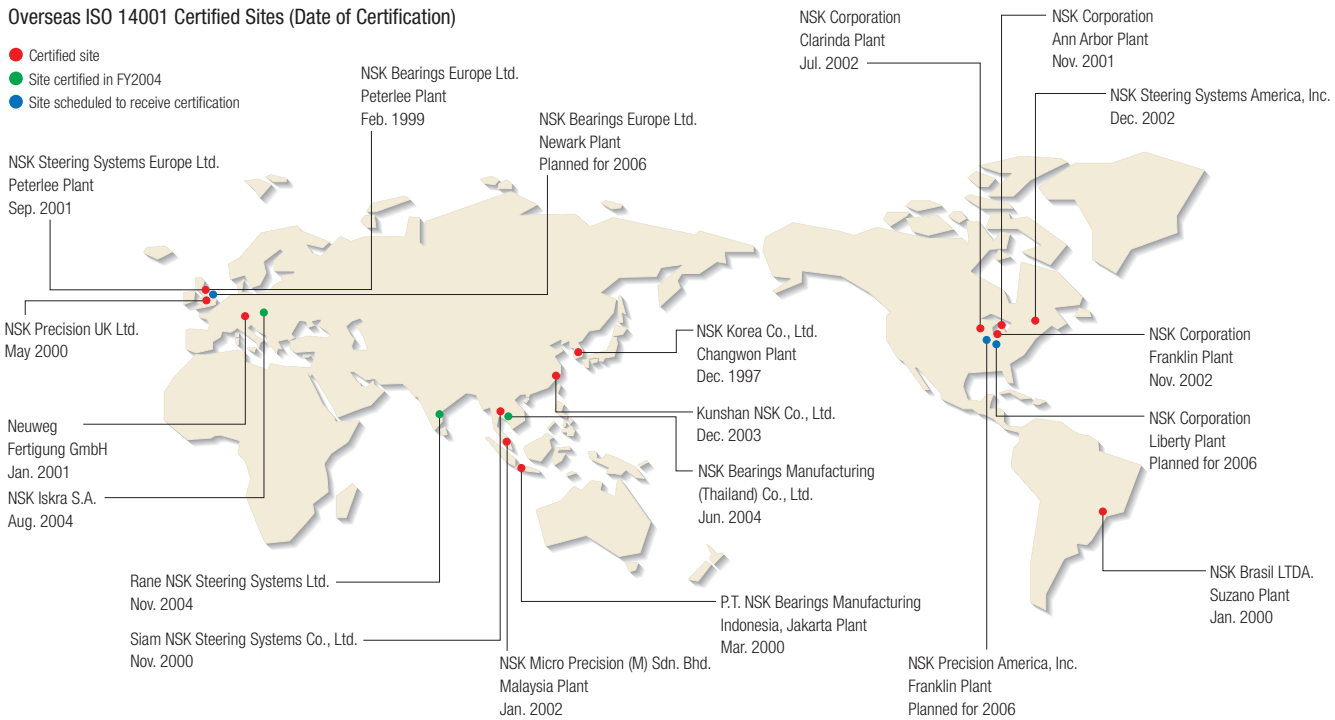
As a global corporation, NSK carries out environmental conservation activities at its overseas production sites under a common set of environmental guidelines. These activities include the acquisition of ISO 14001 certification. In fiscal 2004, three companies acquired ISO 14001 certification: NSK Bearings Manufacturing (Thailand) Co., Ltd., NSK Iskra S.A. of Poland, and Rane NSK Steering Systems Ltd. based in India. This brought the total number of overseas sites with ISO 14001 certification to 17 out of a total of 20 sites.

Issues Identified by ISO 14001 Examinations

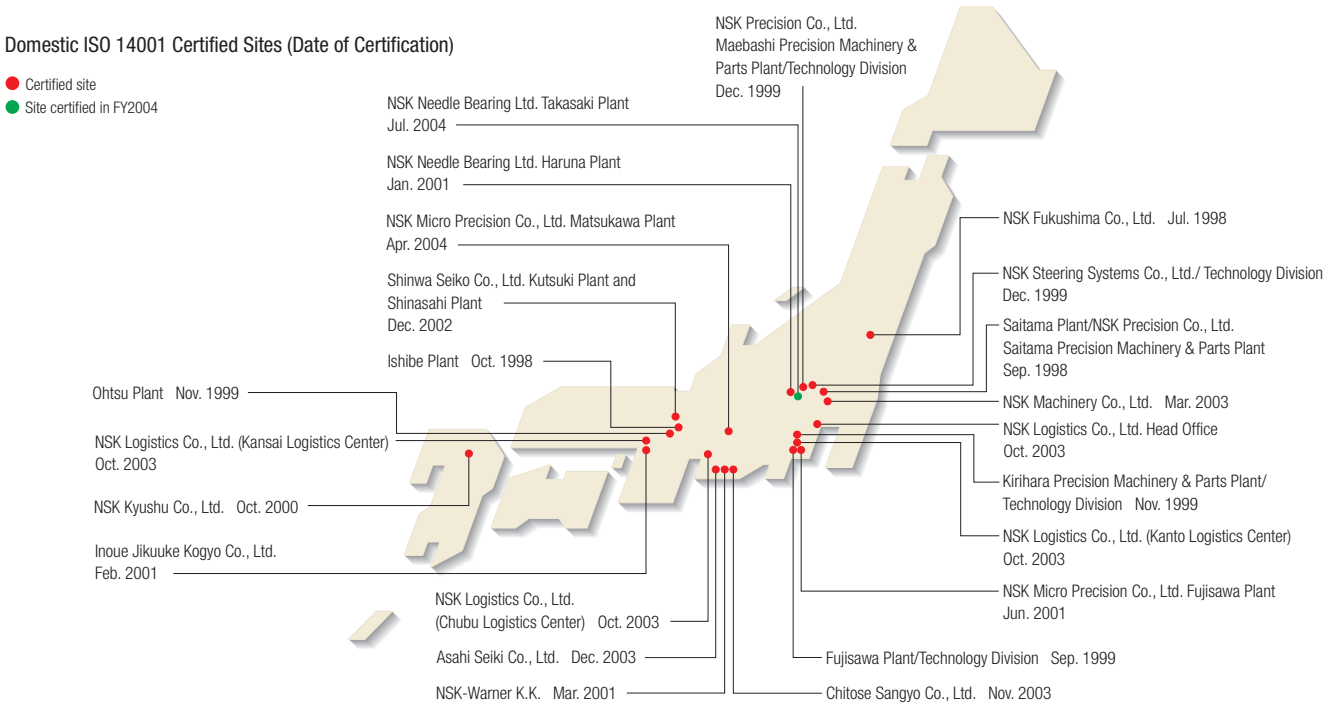
	Name of Site	Serious	Minor	Observation	SP
NSK and Newly Spun-off Subsidiaries	NSK Fukushima Co., Ltd.	0	4	18	1
	Ohtsu Plant	0	1	6	0
	Ishibe Plant	0	2	16	0
	Fujisawa Plant /Technology Division	0	0	13	0
	Saitama Plant/ NSK Precision, Co., Ltd., Saitama Precision Machinery & Parts Plant	0	4	19	1
	Precision Machinery & Parts Division Headquarters (formerly NSK Precision Co., Ltd., Kirihara Precision Machinery & Parts Plant)	0	0	6	2
	NSK Precision Co., Ltd., Maebashi Precision Machinery & Parts Plant/Technology Division	0	0	4	0
	NSK Steering Systems Co., Ltd. /Technology Division	0	0	13	1
Subsidiaries	NSK Needle Bearing Ltd. (Takasaki Plant; expansion examination)	0	0	15	0
	NSK Needle Bearing Ltd. (Takasaki Plant; periodic examination)	0	0	16	1
	NSK Needle Bearing Ltd. (Haruna Plant)	0	0	2	0
	NSK-Warner K.K.	0	0	8	0
	NSK Kyushu Co., Ltd.	0	0	13	1
	NSK Micro Precision Co., Ltd. (Fujisawa Plant)	0	1	12	0
	NSK Micro Precision Co., Ltd. (Matsukawa Plant)	0	2	6	0
	Inoue Jikuuke Kogyo Co., Ltd.	0	0	12	0
	Asahi Seiki Co., Ltd.	0	1	11	0
	Chitose Sangyo Co., Ltd.	0	1	5	0
	Shinwa Seiko Co., Ltd. (Kutsuki Plant and Shinasahi Plant)	0	1	12	2
	NSK Machinery Co., Ltd.	0	3	6	2
	NSK Logistics Co., Ltd. (Headquarters, Logistics Centers in Kanto, Chubu and Kansai regions)	0	1	6	0

Serious: Serious compliance issues such as a total lack of procedures required for the system
Minor: Minor issues, such as a partial lack of compliance with important items
Observation: No compliance issues, but effectiveness of system should be improved.
SP: Strong point (noteworthy achievement)

Overseas ISO 14001 Certified Sites (Date of Certification)



Domestic ISO 14001 Certified Sites (Date of Certification)



*Business sites without company names are NSK plants.

Environmental Education

NSK employees are required to increase their awareness of environmental issues, while taking part in activities from an informed perspective. These efforts are crucial to enhancing NSK's environmental protection program and making activities more effective. Guided by this thinking, NSK continues to offer programs that increase employee awareness, while implementing educational programs at every personnel level to deepen environmental understanding.

Environmental Education at Every Personnel Level

NSK implements environmental education programs for employees at every personnel level, ranging from new hires to management executives. These programs are aimed at disseminating environmental information tailored to the perspectives and roles of employees at various levels of the organization, and ensuring mastery of required environmental knowledge and technologies.

- At NSK Headquarters, group training sessions for new employees offer easy-to-follow explanations on topics such as why environmental efforts are necessary, NSK's environmental efforts, and advice on environmental measures they can undertake on an individual basis. Education at this level aims to provide employees with the basic knowledge necessary to succeed in their new workplaces.

- At its plants, NSK conducts periodic environmental education programs targeting temporary staff and resident professionals as well as full-time employees. These programs are designed to increase understanding of environmental problems and encourage full legal and regulatory compliance in the environmental field. By promoting environmentally conscious conduct grounded on an understanding of how each employee's activities impact on the environment, NSK aims to enhance the level of environmental activities.

- To better respond to growing customer concerns about environmentally harmful substances and implement internal activities required to achieve this end, NSK held training programs for sales divisions, sales agents and manufacturing divisions. Members of the Toxic Substances Control Project Team served as instructors for these programs. Topics covered included trends in environmental regulations and customer requirements, as well as NSK's responses to these issues.

Employees Receiving Environmental Education in FY2004 and Number of Programs

Type of program	No. of participants	No. of programs
① Compliance with environmental laws and regulations	808	35
② Raising environmental awareness	6,073	57
③ Acquisition of environmental qualifications such as environmental auditor	51	31
④ Environment-friendly design, green purchasing and procurement	343	9

Programs for Raising Group-wide Environmental Awareness

- NSK runs a series of articles titled "Environmental Activities" in the *NSK Group News*, a widely distributed internal newsletter. These articles cover various environmental issues surrounding NSK and spotlight environmental initiatives in various fields. Articles in fiscal 2004 included "Initiatives to Eliminate Hazardous Chemical Substances," "Environmental Protection Activities in the Logistics Field," and "Publication of Social and Environmental Report 2004." NSK used these articles to build a deeper understanding of these activities and encourage participation. An English-language version, *NSK NEWSLETTER* is also available to employees overseas. In addition to introducing NSK sites in other countries, this newsletter regularly provides information on a range of environmental activities, including information on environmentally friendly products displayed at exhibitions.

- At NSK plants, Monthly Environmental Reports are distributed to each division. In addition to presenting environmental performance in terms of energy consumption, the recycling rate for waste materials and other benchmarks, these reports cover topics such as the activities of specialist committees and themes related to the distinctive attributes of NSK plants. The aim is to encourage employees to actively take part in environmental initiatives. NSK Precision Co., Ltd.'s Maebashi Plant ran a series of articles on the recycling of waste, and urged each division to take action on this front. The article provided clear explanations on the layout of waste disposal areas and methods for sorting different types of waste to enhance performance in these areas.

Environmental Accounting

At NSK, environmental accounting is regarded as a vital management tool for quantitatively evaluating the costs and benefits of environmental activities. Such accounting is also an invaluable communication tool for engendering a greater understanding of NSK's activities among its stakeholders. To achieve these aims, NSK formally introduced environmental accounting in fiscal 1999 as a means of disclosure.

Accounting Results

In fiscal 2004, NSK's total environmental investments and costs were approximately ¥2,010 million and ¥6,850 million, respectively. Economic benefits from NSK's environmental activities amounted to approximately ¥250 million. NSK pays particular attention to the environmental contribution of its products. R&D required for the development of environmentally friendly products and technologies accounted for approximately 70% of environmental conservation costs. In fiscal 2004, NSK increased investments compared with levels in fiscal 2003, stepping up global environmental costs mainly for energy conservation initiatives and resource recycling costs to promote measures in this field. The result was substantial benefits gained in the form of lower CO_2 emissions per production unit and an enhanced zero emission status. Looking ahead, NSK is planning to broaden the accounting scope to encompass subsidiaries. As part of this drive, environmental accounting has already been introduced at NSK-Warner K.K.

Environmental Conservation Costs

Category		Investments			Costs			Main Purpose
		FY2003	FY2004		FY2003	FY2004		
		Millions of Yen	Millions of Yen	(%)	Millions of Yen	Millions of Yen	(%)	
Business Area Costs	Pollution prevention costs	71.3	187.7	(9.3)	431.8	442.5	(6.5)	• Inspection, repair and maintenance of dust collectors, smoke and soot removers • Odor removers and other countermeasures for unpleasant smells • Improvement and relocation of underground tanks and pipes to above-ground locations • Inspection, repair and maintenance of facilities with an environmental impact • Inspection, repair and maintenance of drainage and waste liquid treatment facilities
	Global environmental costs	262.6	379.9	(18.9)	174.5	242.2	(3.5)	• Energy conservation measures such as the use of inverters • Switch to cleaner sources of energy, such as natural gas • Measures to reduce ozone-depleting substances
	Resource recycling costs	53.9	129.3	(6.4)	397.4	477.5	(7.0)	• Installation of machinery for compacting grinding swarf into briquettes • Measures for recycling and reducing waste products • Treatment/disposal of municipal and industrial waste
	Subtotal	387.8	696.9	(34.7)	1,003.7	1,162.2	(17.0)	
Upstream/downstream costs		0.0	17.1	(0.9)	124.1	173.5	(2.5)	• Green purchasing (Low-emission vehicles, office equipment, paper, stationery, uniforms, etc.) • Recycling of plastic boxes
Management costs		12.1	16.7	(0.8)	396.2	430.8	(6.3)	• Greenery development • Maintenance and operation of ISO 14001 systems • Measurement and analysis of environmental impact
R&D costs		541.6	1,278.0	(63.6)	2,637.4	5,026.3	(73.4)	• R&D into environmental technologies and features for new products
Social activity costs		0.0	0.0	(0.0)	36.9	37.0	(0.5)	• Donations and membership dues for WWF Japan, Keidanren Nature Conservation Fund, and Electro-Mechanic Technology Advancing Foundation
Environmental remediation costs		0.0	0.0	(0.0)	39.5	15.8	(0.2)	• Maintenance and management of treatment facilities
Total		941.5	2,008.7	(100.0)	4,237.7	6,845.5	(100.0)	

Economic Benefits of Environmental Activities

Category	Amount (Millions of Yen)	
	FY2003	FY2004
Cost saving from energy conservation*1, 3	117.2	118.1
Cost saving from waste reduction*1	33.0	40.8
Sales of valuable waste*2	84.0	94.0
Total	234.2	252.9

*1 Including benefits of investments made during 5-year period from FY2000 to FY2004
*2 Income from sale of valuable waste to subsidiaries
*3 Data for FY2003 was revised due to errors in certain figures

Physical Benefits of Environmental Activities

Category		Year-on-year comparison	
		FY2003	FY2004
Plants	CO_2 emissions per prod. unit	7.4% improvement	0.2% improvement
	Water consumption per prod. unit	1.2% improvement	3.8% improvement
	Landfill waste ratio	0.1% improvement	0.1% improvement
	Waste recycling ratio	0.4% improvement	0.6% decrease
Logistics	CO_2 emissions per prod. Unit	4.4% improvement	3.5% increase

Scope and Method of Data Collection

- Period: April 2004 to March 2005
- Sites covered: Plants operated by NSK and its newly spun-off subsidiaries, technology, logistics, and headquarters divisions
- Criteria for recording environmental conservation costs
  - Environmental investments and costs determined in accordance with "Environmental Accounting Guidelines 2002," published by Japan's Ministry of the Environment.
  - Depreciation is recorded as a cost using the 5-year straight-line depreciation method.
  - Compound costs are divided in proportion to the relative environmental purpose.
  - Costs incurred through green purchasing are posted as full amounts; not the differential amount.
- Criteria for recording environmental conservation benefits
  - Economic benefits determined through actual evidence (in monetary units) and physical benefits resulting

Glossary

Briquettes: Refers to bricks of compressed grinding swarf roughly the size of a fist. Compressing grinding swarf—a manufacturing by-product—into briquettes makes it easier to reuse as a raw material in steelmaking.

Initiatives at the Design and Development Stage

Developing Environmentally Friendly Products That Take Into Account the Entire Product Lifecycle

NSK products help protect the environment by greatly improving the efficiency of rotational and linear movements in a broad array of machinery, from automobiles to electrical equipment. We also aim to further reduce the environmental impact of manufacturing processes and to design and develop environmentally friendly products that are clean and benefit society while conserving energy and other resources at the product-use stage. In fiscal 2004, NSK continued to aggressively develop products with a smaller environmental footprint by reducing their global warming effect, eliminating substances that harm the environment and taking other steps.

Designing and Developing Environmentally Friendly Products

One of the goals of the NSK Group's Environmental Policy has been to develop "environmentally friendly products and environmental conservation technology." To ensure that design and development divisions adopt this approach as a standard part of their daily routine, NSK established a basic common policy in fiscal 2001 for all technical divisions, as well as a set of independent action plans for each division. From this shared vision, NSK aims, from the earliest planning stages, to design and develop environmentally friendly products that reduce environmental impact throughout the entire product lifecycle.

Basic Policy for the Development of Environmentally Friendly Products

To supply environmentally friendly products, we will endeavor to develop products that minimize environmental impact throughout their lifecycle—from research and development, through design, production and use, until final disposal. Specifically, we will manufacture products according to the following standards:

1. Products should contribute to energy and resource conservation when used by customers
2. Products should have minimal energy requirements and minimal impact on natural resources during the manufacturing process
3. Products should be manufactured using processes that are free of any environmentally harmful substances
4. Products should contribute to the health and safety of end users with low noise, low vibration and low dust emissions

Initiatives in Product and Manufacturing Technologies

● Creation of Environmentally Friendly Products and Environmental Conservation Technologies

Given their ability to conserve energy and resources, NSK's rolling bearings, ball screws, linear guides and other products are inherently environmentally friendly.

NSK bearings are manufactured largely from scrap steel and end-of-life products are recycled as steel material. Such recycling minimizes the environmental impact of NSK products throughout their entire lifecycle, from the raw materials used through to manufacture and final disposal.

In terms of environmental technology, NSK has two primary missions. The first is to create environmentally friendly products that conserve energy, consume fewer other resources, are free of environmentally harmful substances and deliver other benefits at the product-use stage. The second is the development of processing and manufacturing technologies that reduce environmental impact by incorporating concern for the environment throughout the entire production process, from material and parts selection, to manufacture, shipping and disposal. Through initiatives linking production, sales and technology, NSK increased the number of registered environmentally friendly products and environmental conservation technologies that meet its voluntary standards by 17 to 108 in fiscal 2004, compared with the previous fiscal year.

Technology-based Environmental Matrix

Environmentally friendly product | Environmental conservation technologies

Process / Environmental effects	Features and functions in product planning (Customer benefits)	Parameters for selecting materials, parts & lubricants	Considerations for manufacturing and shipping	Considerations for disposal
Energy conservation (Reduction of electricity, gas, fuel)	More compact and lightweight, lower torque, higher speed CVT, EPS, hub units, low-torque ball bearings, roller clutches with plastic cages	Selection of parts and materials with low environmental impact and consuming minimal energy Fast-carburizing medium carbon steel	Simplified processing, reduction of stock removal, reduced heat treatment times Technology for correcting heat treatment distortion Expanded micro-machine process technology	Recycling
Resource conservation (Long-life design, low resource consumption, recyclable)	Longer life, unit design, more compact design, more resistant to corrosion and heat New material long-life bearings, linear guides with lubricating unit, robust series bearings	Easy-to-recycle, lightweight materials Use of hollow shafts Use of high-strength plastic components	Increased yield, technology for utilizing both main and odds, near-net-shaping Cold rolling, precision roll forming, segment-facing technology, use of recycled plastics	Recycling Degradable
Cleanliness, health and safety (Eliminate environmentally harmful substances, maintenance-free, non-polluting, low noise and vibration)	Cleaner, tighter sealing, lower noise and vibration, no dust, no need of lubricant replenishment Molded-Oil™ bearings, squeak-free bearings, quiet ball-screws	Materials and parts free of hazardous substances Use of new, alternative materials, biodegradable lubricants Biodegradable greases, switch to chromium- and lead-free materials, use of titanium alloys	No hazardous substance use within plants, use of non-hazardous cleaning agents, promotion of dry processing Elimination of substances subject to the PRTR Law Abolition of ozone-depleting substances	No emissions of environmentally harmful substances even after disposal (through landfill or incineration) Free of PVC Free of brominated flame retardants

Glossary

CVT: Abbreviation for continuous variable transmission. Generate no shock during changes of speed.
EPS: Abbreviation for electric power steering. EPS uses a motor to assist the driver in vehicle handling.
Hub unit bearings: Bearings that integrate an inner ring, outer ring, ball bearings and a bearing cage into a single unit attachable to automotive wheels.
Hollow shaft: Rounded, bar-shaped bearings hollowed out to achieve lighter weight.
Maintenance-free: Equipment and facilities which require little or no maintenance and management.

Elimination of Environmentally Harmful Substances

● Toxic Substances Control Project Team Set up to Strengthen Initiatives

Part of NSK's basic policy for product development demands that "products should not contain environmentally harmful substances." The EU RoHS directive, which comes into effect in July 2006, bans the use of lead, hexavalent chromium, cadmium, mercury, PBB and PBDE in specified electrical and electronic equipment. Meanwhile, the ELV directive, also an EU initiative that comes into full force in July 2007, bans the use of lead, hexavalent chromium, cadmium and mercury in vehicles. NSK therefore expects to have to rapidly respond to a rising number of requests from customers prior to the enforcement of both these directives.

Against this backdrop, NSK established the cross-divisional Toxic Substances Control Project Team in July 2004 under the Global Environment Protection Committee. This team has been instrumental in more active efforts by NSK to reduce the use of environmentally harmful substances in its products.

In May 2005, NSK published the fourth version of internal regulations, initially formulated in March 1997, for environmentally harmful substances contained in products. These revised regulations not only reflect recent laws, but also regulations related to chemical substances at domestic and overseas customers. NSK's internal regulations are based on the highest possible standards for the control of chemical substances and cover product design and green procurement. Specifically, these regulations ban the use of 58 groups of chemical substances, target the restricted use of a further 19, and require declaration for another 45 prior to use. If there is no other option than to use substances targeted for restriction, designers are required to formulate plans detailing how these chemicals can be reduced until complete elimination. In the case of substances that require declaration prior to use, selection of an alternative is mandatory.

NSK's rolling bearings, ball screws and linear guides all come under the scope of the EU RoHS directive. By the end of June 2005, one year ahead of the directive's enforcement, we had established a framework that allowed us to comply with this directive.

The Toxic Substances Control Project Team has other responsibilities in addition to reducing the volume of harmful environmental substances in NSK products. The team gathers chemical composition data for components and materials supplied by business partners and materials manufacturers, and then shares this data across the NSK Group. NSK also discloses this information via the International Material Data System (IMDS), a chemical composition database operated primarily by customers in the automotive industry. The team also works to promote the elimination of harmful environmental substances from materials and components at the procurement stage. It does this by explaining NSK's standards to suppliers and seeking their cooperation in achieving them. In this way, NSK is working closely with customers and business partners to reduce these substances and comply with all relevant laws and regulations.

● Progress on Eliminating Environmentally Harmful Substances

NSK is steadily implementing a plan to eliminate environmentally harmful substances from its products. Progress with this plan is shown in the table below. Going forward, NSK will continue its voluntary control activities and comply with all relevant rules and regulations as it works to completely eliminate the use of environmentally harmful substances.

Progress on Eliminating Environmentally Harmful Substances

Product Category	Specified Substance	Specified Part/Product	Alternatives Introduced
Bearings	Hexavalent Chromium	(Surface Treatments) • Bearing shields • Core plate for bearing seals • Pulley units • Bolts for hub unit bearings	2003/03 2004/03 2005/03 (Excluding products specified by customers) 2004/12
	Lead	• Grease additives • Pulley unit coating	2003/03 2004/12
Automotive Components	Hexavalent Chromium	• Surface treatment for steering components • Electrical EPS components	Alternative currently being phased in 2004/12
	Lead	• Cation coating for steering components • Block bearings for roller clutches	2004/06 2004/03
Precision Parts	Hexavalent Chromium	(Surface treatments) • Bolts for ball screws and linear motion parts • Core plate for linear motion part seals • Linear motion part seal coloring	2005/06 2005/06 2004/03
	Lead	• Linear motion part seal adhesive	2005/05
Mechatronic Products	Lead	• Solder*	Alternative currently being phased in
	Hexavalent Chromium	• Surface treatment for metal panels and connecting components	Alternative currently being phased in
	PBB and PBDE	• Wiring covering material	2004/03
	Cadmium	• Nickel-cadmium batteries	Scheduled for 2006/01

*Excluding high-melting-point solder with a lead content of 85% or greater

● Alternative Technology for Environmentally Harmful Substances

Roller clutches are a type of one-way clutch that only transfer torque in one rotational direction. They are mainly used in vehicle automatic transmissions.
For the block bearings used in its roller clutches, NSK had been using a lead-bronze material that contained a small percentage of lead to improve rigidity. However, NSK has developed and introduced a bronze-based sintered material as an alternative.

Glossary

ELV Directive: Directive issued by the European Union to promote less waste from and proper disposal of end-of-life vehicles.
RoHS Directive: Directive issued by the European Parliament and Council of the European Union restricting the use of specified hazardous substances in electrical and electronic equipment.
Hexavalent Chromium Compounds: Compounds ranging in color from yellow to red that are highly volatile, and damaging to the skin or nasal membranes if touched or inhaled. Hexavalent chromium compounds have also been identified as carcinogenic.

Product Spotlight

Eco-friendly packaging that cuts time needed for grease application and bearing cleaning

Minute dirt and dust particles must be prevented from adhering to high-precision bearings used in machine tools in order to achieve faster, more accurate rotation. In the past, customers thoroughly cleaned their machine tools and applied lubricating grease prior to installing high-precision bearings. To resolve this issue, NSK developed Global Package, a new type of volatile corrosion inhibitor (VCI) film that reduces the time needed for grease application and cleaning. The new film, when applied to greased bearings, results in a secure seal that protects the component against atmospheric corrosion. This precludes the need for the application of anti-corrosion oil during cleaning with detergents and other materials when the component is installed in the machine tool. It also prevents grease from being scattered and dirt and dust from adhering to the bearings during transport, ensuring the delivery of exceptionally clean products to customers.

Thanks to this new film, customers spend significantly less time on bearing installation due to a shorter process. And because there is no need to use cleaning materials, this film helps to improve the workplace environment and conserve resources.

NSK continues to work on the development of packaging that ensures improvements in product performance are also delivered to customers.

Helping to reduce maintenance costs for steel rolling equipment

Water-tough (WTF™) Roll Neck Bearings

Four-row tapered rolling bearings are used as roll neck bearings in steel rolling equipment. These bearings are used in exceptionally harsh environments where they are subjected to vibration, impact and heavy loads during steel rolling, and are also showered with cooling water and iron fragments. Because regular maintenance is required, users demand bearings that are more reliable and have longer usable lives.

In response, NSK has been improving seal performance since 1999 to prevent water and iron fragments from entering the bearings. NSK has also developed and launched Extra-capacity Sealed-clean Roll Neck Bearings that employ a new structural design to allow them to bear greater loads. These bearings have won plaudits from customers.

In 1995, NSK began focusing on extending the usable lives of bearings by developing materials and heat-treatment processes that are more durable in mixed water and iron fragment environments. The results of these efforts were applied to the development of WTF™ bearings. While retaining all the features of Extra-capacity Sealed-clean Roll Neck Bearings, WTF™ bearings have a usable life approximately three times that of existing bearings. This helps to reduce maintenance costs at steel mills while saving energy and resources.

Water-tough (WTF™) Roll Neck Bearings

Features:

1. Longer usable life in mixed water and iron fragment environments thanks to new materials and NSK-developed heat-treatment processing technology.
2. Early-stage crack control through the use of ultra-clean materials.
3. Special NSK-developed heat-treatment processing technology that controls deterioration in cracks if they do occur.

Linear guides with significantly improved durability in harsh environments

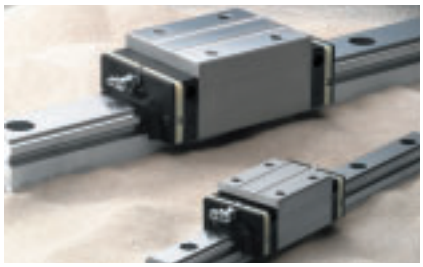
The V1 Series

Linear guides are vital to linear motion in machinery. They are widely employed in machine tools used to process metal, wood and other materials, as well as in conveying equipment.

As applications become more diverse, linear guides are being installed in more adverse operating environments that lead to the adhesion of significant amounts of small and large foreign particles. Examples include metal debris, ceramics, rubber, wood, and welding sputter from processing machinery. In this kind of environment, contaminants entering the internal workings of linear guides can lead to abnormal friction and result in component failure. Consequently, linear guides that demonstrate long-term durability in contaminated environments are highly sought after by users.

In order to meet these needs, NSK developed the V1 Series of long-life linear guides, which have longer usable lives by preventing contaminants from entering internal workings. These linear guides are also contributing to the development of more compact machinery and helping to save resources.

Glossary Welding Sputter: Drops of metal that fly off during the welding process



NSK V1 Series Linear Guides

Features:

1. These linear guides employ pioneering multi-lip seals that are highly resistant to contamination and reduce the volume of foreign matter passing into the slider to less than one tenth of conventional products.
2. Attaching the NSK K1™ lubrication unit improves durability and lubrication in the ball and seal lip components and leads to a significant increase in the usable life of the linear guides in contaminated environments (wood particle environments: more than double; rubber powder environments: more than five times).

The world's smallest ball bearing—smaller than a grain of rice

NSK Micro Precision Co., Ltd. has succeeded in creating the world's smallest ball bearing with an external diameter of 2mm and an internal diameter of 0.6mm. The company has also developed related volume production technology. All the bearing's raceway grooves have been precisely ground and superfinished, allowing it to clear required international precision standards for ultra-precise, low-noise ball bearings.

Prior to this achievement, bearings with an external diameter of 4mm had been the smallest volume production size available. But with the growing trend toward even more compact IT components, customers are seeking bearings that are smaller but deliver the same or better precision and performance. NSK therefore took the pioneering step to develop a product with even smaller dimensions, employing ultra-small bearing processing technology that sets new standards in the industry. The result is a bearing that helps save energy and resources in areas such as processing equipment for ultra-compact, ultra-thin products and high-precision measuring instruments. NSK also sees great potential for application in other fields.

The world's smallest ball bearing atop a grain of rice

Features:

1. The world's smallest, ultra-precise, low-noise ball bearing.
2. Highly corrosion resistant thanks to the use of stainless steel for the ball bearing and the outer and inner casings.

Bearings for wind turbines

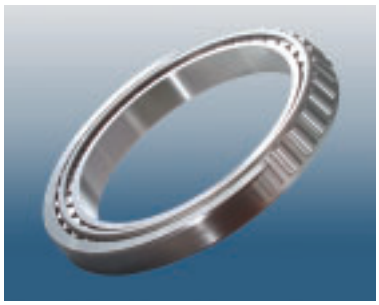
Wind power generation, together with solar power generation, is seen as an important source of clean energy. At the end of December 2004, total global wind power generation capacity was estimated at 47,317MW, an increase of 20% from the previous year. The growing size of wind turbines and the construction of large-scale wind farms, some out at sea, now herald the dawn of a wind power generation era. Spurred by stricter environmental policies, Europe leads the world in both wind power generation technology and generation capacity. The continent accounts for 72.4% of worldwide generating capacity.

Customers are increasingly seeking wind turbines with greater generating efficiency, reflected in the steady shift toward larger blades capable of withstanding stronger winds. The latest wind turbines have blades and supporting towers in excess of 60 meters in length and height, respectively (equivalent to a 20-story building), and are capable of generating more than 1,000kW of power (equivalent to the energy needs of 600 typical Japanese households). These giant wind turbines are becoming more common, and there are even models capable of generating 5,000kW now undergoing testing.

The shift to larger turbines means that the loads borne by bearings are increasing. Bearings also have to be lighter to allow easier installation in higher positions. At the same time, because wind turbines are sited in a variety of harsh marine and mountain environments as well as high- and low-temperature zones, manufacturers require maintenance-free components that are highly reliable over sustained periods of operation.

In order to satisfy these requirements, NSK has drawn on its wealth of experience and its analysis technology, used to model a diverse range of operating conditions, to develop and supply bearings specifically designed for wind turbines—a new field for the company.

(Wind power generation data as of December 31, 2004, Global Wind Energy Council)



Glossary Wind Farms: Concentrations of wind turbines sited in marine and other locations.

Catching the European Tailwind ~The Story Behind NSK's Bearings for Wind Turbines~

Shinichi Natsumeda
Doctor of Engineering, Executive Chief Engineer, Technology Development Department 1, Corporate Research & Development Center

Yutaka Kanda
Technology Development Department 1, Corporate Research & Development Center

NSK has supplied bearings for wind turbines since the late 1980s. However, from the second half of the 1990s we began focusing more intensively on developing these components. Since then, the challenge of creating bearings that are used as key components in renewable energy systems has become a key mission for NSK in light of its strong commitment to protecting the global environment.

Taking on the Challenge

Natsumeda: What really got us thinking seriously about wind turbines was the fact that wind power generation was becoming more widespread in Europe. Information from our subsidiary in Germany, NSK Deutschland GmbH, which looked into the possibilities of wind turbines and examined their growth potential, convinced us of their importance.

A single wind turbine needs more than 100 different types of bearings. Turbines, however, rely on the unpredictable forces of nature in the form of wind, which means that these bearings need to be designed to accommodate a wide range of possible scenarios. In order to generate even greater outputs, manufacturers are also creating increasingly larger wind models, and this trend is accelerating faster than the pace of progress in related technology and expertise. Consequently, even tougher design challenges lie ahead.

Although we had to tackle a number of challenges in very tight product development timeframes—such as designing bearings with unfamiliar specifications, and differences in European and Japanese manufacturing cultures—we saw all these challenges as opportunities at NSK. By accepting our respective differences and ensuring close communication, I am proud to say that we were able to deliver products that our customers were pleased with.

Making the Future a Reality

Kanda: I joined the wind turbine project in my second year at NSK. Although my lack of experience did play a part, I was bewildered when I first read the wind turbine bearing specification sheet supplied by the customer. Wind turbines can only recover the significant initial investment needed to construct them if they operate continuously for 15~20 years. Operators can also incur substantial repair costs in the event of a breakdown. Consequently, bearings that demonstrate exceptional reliability are highly sought after by wind turbine manufacturers. At the same time, despite their large size, delivery times for wind turbine bearings are very tight, meaning design and production processes often had to be undertaken simultaneously. Using wind turbine operating data and based on regular meetings with customers, we carried out repeated design improvements and experimental testing to improve the durability and reliability of our wind turbine bearings.

I get an immense feeling of accomplishment from the fact that the bearings I had a part in designing are now used in wind turbines in Europe and around the world. My role in this project also made me realize that NSK gives its employees—regardless of age and experience—the opportunity to tackle jobs that have real global significance. I also know that the successes we achieved as a team will help to drive clean energy in the years ahead and consequently contribute to the prevention of global warming. Although developing new technologies often means days of slow and steady progress, the culmination of these efforts makes it all entirely worthwhile.

Initiatives at the Procurement Stage

Green Procurement

In order to deliver products to users that have a lower environmental impact, NSK is working with suppliers across its entire supply chain to source components and materials with a smaller environmental footprint. In fiscal 2004, NSK held green procurement seminars at six sites nationwide to enhance cooperation with partners on a new range of initiatives.

Action Guidelines

●Green Procurement (Raw Materials, Parts and Materials)

- Reduce the environmental impact of raw materials, parts, materials and packaging materials
- Promote the management and elimination of hazardous substances
- Encourage efforts by suppliers

●Green Purchasing (Purchase of General Goods)

- Reduce the environmental impact of purchased goods
- Raise employee awareness of environmental issues

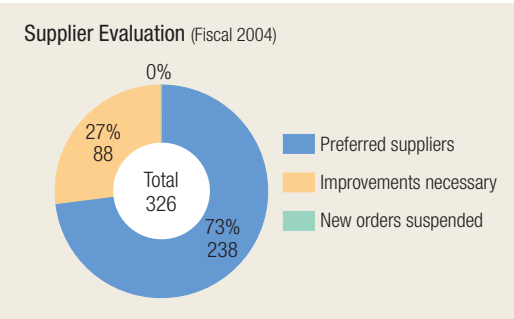
Using the Supply Chain to Reduce Environmental Impact

●Green Procurement Seminars Held at Six Locations Nationwide

In an effort to supply environmentally friendly products and contribute to energy and resource conservation, NSK is working to reduce the environmental impact of its products from development and shipment right through to the customer-use stage. In particular, NSK is working to respond to increasingly strict controls on environmentally harmful substances and to provide customers with the data they require on these chemicals. In order to achieve this, it is vital that NSK works closely with suppliers to reinforce the control framework for its entire supply chain so that it can accurately identify environmentally harmful substances in components and materials right from the manufacturing stage. With this in mind, NSK revised the *NSK Green Procurement Standards* and the *NSK Hazardous Substance List*, and also held six seminars nationwide for around 350 suppliers in fiscal 2004. Using these seminars, NSK introduced the underlying principles of its standards, explained in detail the required controls for environmentally harmful substances, and called on its business partners for even tougher initiatives.

●Supplier Evaluation Included in Green Procurement

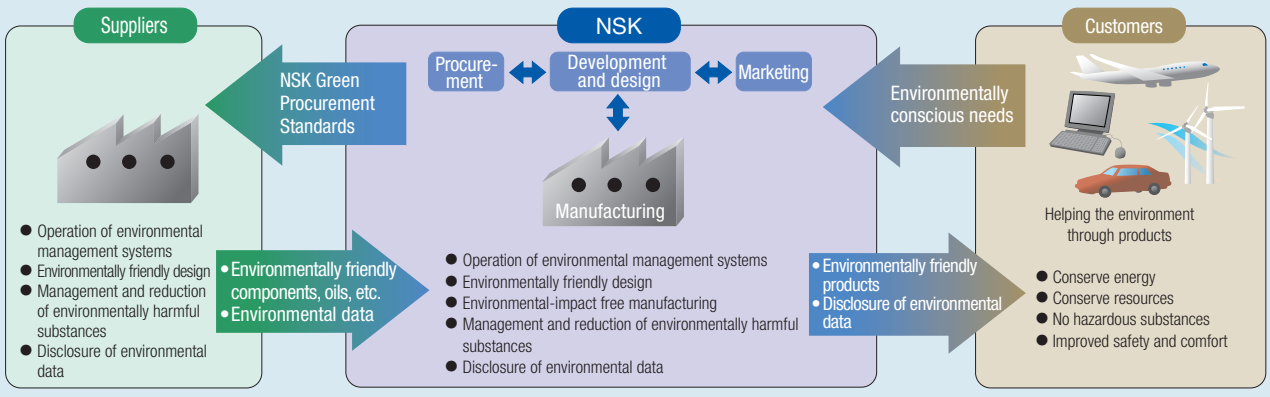
Prior to signing up new suppliers, NSK has typically assessed areas such as product quality, price and delivery. From 2001, NSK also began asking potential suppliers to provide self-assessments of progress on environmental initiatives and awareness of environmental issues in procurement. This has allowed NSK to procure products with less environmental impact from companies that have more active environmental protection programs.



Future Initiatives

Going forward, NSK plans to enhance cooperation with suppliers and upgrade green procurement initiatives further as it works to reduce the environmental impact of its products. Steps will also be taken to steadily develop green procurement measures at overseas operating sites.

■ Overview of Green Procurement



Glossary

Green Procurement: Refers to the concept of giving priority to suppliers that are more proactive in enacting environmental protection measures when purchasing more environmentally friendly products. Green procurement is one way that a company's environmental stance can have an effect on those outside its immediate operating sphere.

Supply chain: Refers to the integrated network of development, transport, purchasing and sales operations linking raw material suppliers through to customers.

Global Warming Countermeasures

Carbon dioxide (CO_2) accounts for the majority of greenhouse gases emitted by NSK's manufacturing activities. With the enforcement of the Kyoto Protocol, which has significant implications for the prevention of global warming, companies are now required to implement more active steps to reduce emissions of greenhouse gases. Through its long-standing efforts to save energy, NSK has worked to reduce CO_2 emissions. In fiscal 2004, NSK, its affiliates and spun-off subsidiaries exceeded their targets for reducing CO_2 emissions.

Performance in Fiscal 2004

NSK is aiming to reduce CO_2 emissions per production unit by 23% by fiscal 2010 compared to levels in fiscal 1990, the benchmark year. In fiscal 2004, CO_2 emissions per production unit fell by 0.2% year on year, and were 21.2% less than fiscal 1990, exceeding our targets. NSK subsidiaries also saw improvement, with emissions down 7.9% year on year.

Steps to Prevent Global Warming

NSK is taking the following steps as part of its efforts to prevent global warming:

- Shifting to clean energy sources
- Promoting exhaust heat usage
- Encouraging energy conservation activities
- Converting to high-efficiency energy facilities

Concrete Initiatives

●Shifting to Natural Gas

NSK Needle Bearing Ltd. has completed the shift to natural gas, which has a relatively low CO_2 emission coefficient, for all its heat treatment and air conditioning facilities at its Haruna Plant. Meanwhile, NSK Steering Systems Co., Ltd. has converted the air conditioning facilities at its Soja Plant to run on natural gas instead of kerosene. NSK is looking into implementing similar steps at other facilities.

●Introducing Cogeneration Systems

Cogeneration systems are already in place at NSK Kyushu Co., Ltd. and the Maebashi Precision Machinery & Parts Plant of NSK Precision Co., Ltd. These systems power facilities inside plants, while exhaust heat from the generators are used to heat water or produce steam to heat temperature-controlled areas.

●Energy Conservation Activities

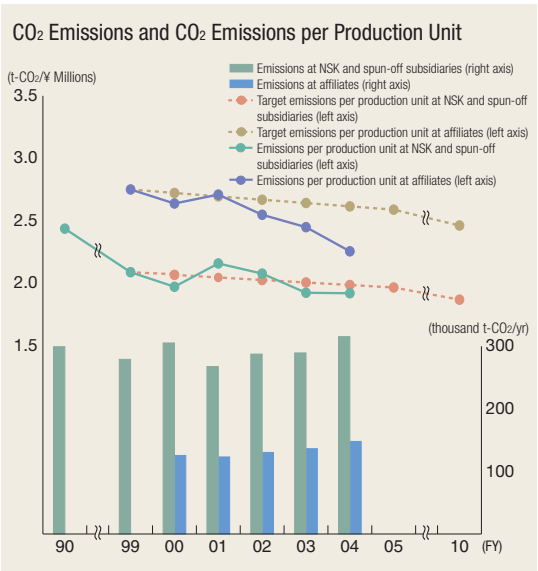
For some time now, NSK has been implementing its Advanced Production System (APS) activities, which are designed to drive innovation at the manufacturing stage. APS activities are specifically aimed at boosting manufacturing efficiency by thoroughly eliminating *muda* (waste) in production processes. Measures include reducing energy use during downtime, adopting inverters for lighting and pumps to achieve partial-load operation, and ensuring smooth operations through maintenance activities.

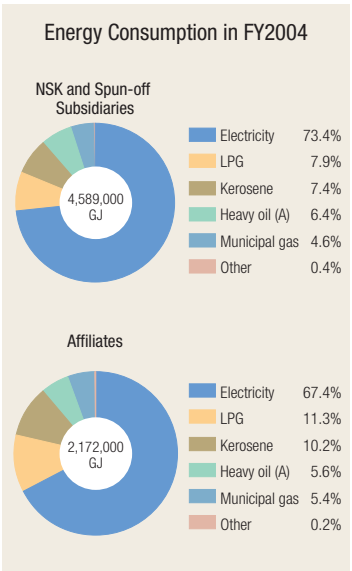
●Converting to High-efficiency Facilities

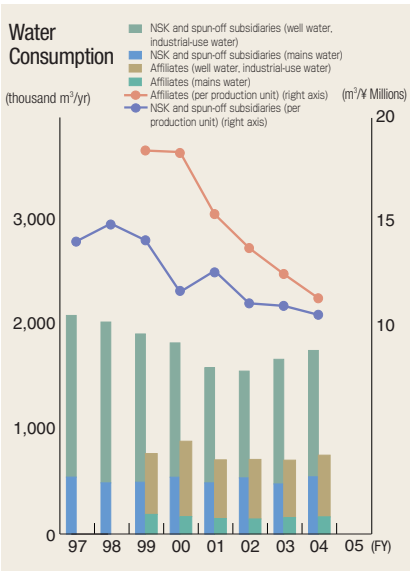
In order to remove specified CFCs from its sites, NSK is installing new high-efficiency turbo chillers. As an additional benefit, these chillers conserve energy and consequently help to reduce emissions of CO_2. These chillers are steadily being installed at the Fujisawa Plant.

Working Toward Fiscal 2010 Goals

NSK will continue to implement improvements as it works to achieve ongoing reductions in fixed energy consumption. NSK will also switch to natural gas and introduce low-energy consumption production lines as a matter of priority as part of its global warming prevention efforts.







Notes:
- CO_2 emissions of electricity purchased from power companies are calculated assuming that the electricity was generated using a thermal-power generation system.
- Energy conversion values are calculated based on peak demand figures.
- CO_2 emissions per production unit means CO_2 emissions per value-added production of ¥1 million (value-added production = production – disbursements).
- Conversion of LPG, kerosene, heavy oil (A), municipal gas, diesel and gasoline consumption to CO_2 emission values is based on guidelines from Japan's Ministry of the Environment.

Glossary

Cogeneration System: Refers to highly energy efficient systems that utilize heat emitted by engines or turbines during power generation for air conditioning, water heating, production equipment and other purposes.

Initiatives at the Manufacturing Stage

Waste Reduction and Recycling Measures

In fiscal 2002, after plants operated by NSK and its spun-off subsidiaries achieved zero emissions status, NSK extended its zero emissions program to the whole Group, including affiliates, as part of its efforts to help realize a recycling-oriented society. Two Group companies attained zero emissions status in fiscal 2004, following on from six other companies that had achieved the same status by fiscal 2003. As a result, all domestic NSK Group sites have now achieved zero emissions status.

Guiding Policies

Through extensive implementation of the 3Rs (Reduce, Reuse and Recycle), NSK is advancing measures designed to contribute to the development of a recycling-oriented society. These measures include zero emissions activities, which aim to completely eliminate the amount of unusable waste sent to landfill, and initiatives for boosting NSK's recycling ratio.

- Reduce
  Improve manufacturing yields by reviewing the processing conditions for products and by improving the production process.
- Reuse
  Reuse secondary and other materials.
- Recycle
  Improve recycling in manufacturing processes and develop uses for recycled materials.

All Domestic Group Plants Achieve Zero Emissions Status

NSK defines zero emissions as sending 1% or less of the total volume of waste generated to landfill. Efforts to realize zero emissions began in 2000, and by fiscal 2002, this status had been attained at all plants operated by NSK and its spun-off subsidiaries. While maintaining this status at these plants, NSK implemented further steps to achieve zero emissions for the entire NSK Group, including affiliates. As a result, six companies by fiscal 2003, and a further two companies by fiscal 2004 achieved this status, meaning that all domestic Group plants were classified as zero emissions facilities by March 2005.

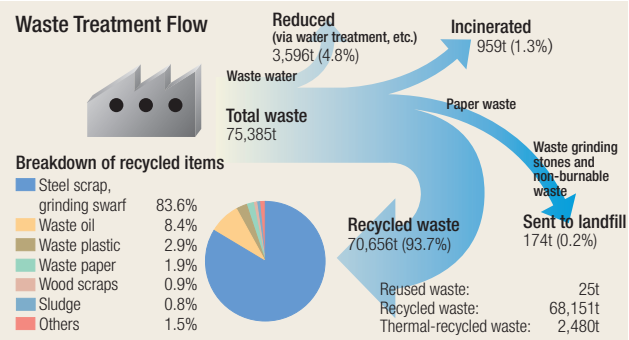
●Reducing Waste Sent to Landfill

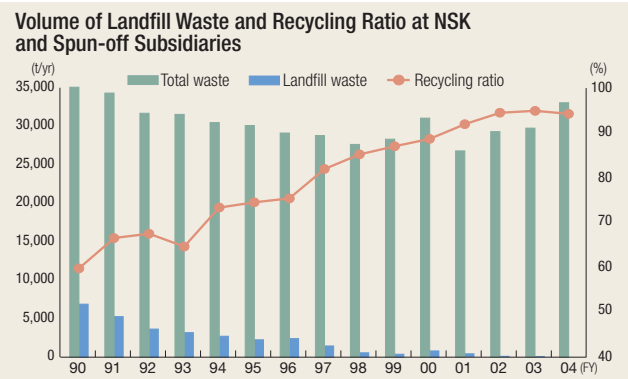
In fiscal 2004, NSK reduced the volume of waste sent to landfill by 224 tons, or 56.3%, year on year. This was achieved by more carefully sorting waste, finding more applications for recycled materials and extending landfill waste reduction initiatives at NSK plants to sites operated by affiliates. Landfill waste now only accounts for 0.2% of all waste generated.

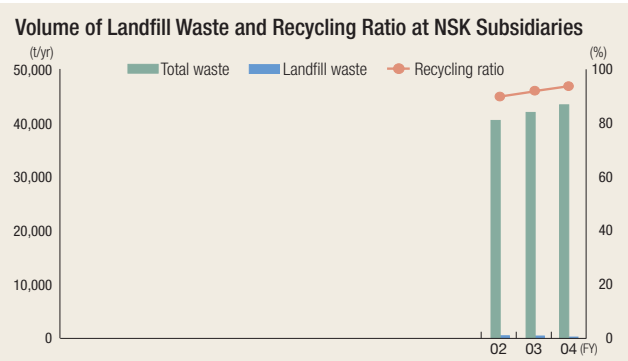
Working to Boost the Recycling Ratio

Thanks to initiatives centered on affiliates, NSK increased the recycling ratio for the Group from 93.2% in fiscal 2003 to 93.7% in fiscal 2004. However, the recycling ratio at plants operated by NSK and its spun-off subsidiaries fell slightly from 94.8% to 94.2%.

Although NSK has worked to boost the recycling ratio by carefully sorting paper and plastic waste and implementing other carefully targeted initiatives, rapid increases in output at some plants led to the generation of effluent that exceeded the recyclable volume. Consequently, these plants were forced to use intermediate disposal methods such as external water treatment facilities, leading to this drop in the recycling ratio. To resolve this issue, NSK is currently focusing on reducing the volume of effluent generated at its plants.







Recycling Ratio Above 98% by Fiscal 2010

By maintaining zero emissions, and through better waste sorting and reductions in waste volume, NSK is redoubling efforts to raise its recycling ratio to at least 98% by fiscal 2010.

Glossary

Zero Emissions: Defined as the state where direct landfill waste accounts for less than 1% of total waste emissions. Landfill encompasses waste after intermediate treatment, such as dehydration, crushing or compressing, as stipulated under Japan's Waste Disposal Law. Landfill includes industrial waste such as metal by-products, oil and sludge, as well as business-related municipal waste such as waste paper and wood scrap.

Initiatives at the Manufacturing Stage

Measures to Reduce Environmentally Harmful Substances

NSK is implementing a variety of measures to minimize its use of environmentally harmful substances. In fiscal 2004, the number of products purchased by NSK that included substances subject to the PRTR Law fell 35% compared to fiscal 2000. NSK also worked to eliminate substances not ordinarily released into the environment, such as specified CFCs used as refrigerants and halon-based fire extinguishers. NSK met its fiscal 2004 targets for these substances, reducing them by 80% and 57%, respectively.

Reduction Targets

NSK has regulations governing the management of environmentally harmful substances used in plant operations and production, and is systematically reducing or replacing these substances with less harmful alternatives.

- Completely eliminate ozone-depleting substances (specified CFCs used as refrigerants, halon-based fire extinguishers) by fiscal 2005
- Reduce the number of purchased products that include substances subject to the PRTR Law by 50% by fiscal 2005 compared to fiscal 2000
- Reduce the number of purchased machining oil products (a secondary material used at plants) that contain chlorine additives by 50% by fiscal 2005 compared to fiscal 2000

Reduction of Environmentally Harmful Substances and Promotion of Alternatives

● Reduction of Ozone-depleting Substances

NSK abolished the use of ozone-depleting substances in cleaning processes in 1994, and is now reducing other types of ozone-depleting substances, namely specified CFCs used as refrigerants and halon-based fire extinguishers. In fiscal 2004, NSK upgraded its turbo chillers and machine oil coolers, reducing the volume of CFCs by 80% compared to fiscal 2000. Similarly, the adoption of alternatives lowered the number of halon-based fire extinguishers at NSK sites by 57%.

● Reduction in Number of Procured Products Containing Substances Subject to the PRTR Law

In fiscal 2004, NSK introduced alternatives for 30 products containing substances subject to the PRTR Law at each of its plants, achieving a reduction of 35% in the number of these products. Among the products replaced were a grinding coolant containing 2-amino ethanol and a cleaning fluid containing poly (oxyethylene) nonylphenyl ether.

Xylene and toluene contained in kerosene and gasoline, mainly used as fuel for air conditioning systems and forklift trucks, account for around 70% of substances handled by NSK subject to the PRTR Law.

In a breakdown of released and transferred substances, release to the atmosphere accounted for 19%, due to evaporation of cleaning solvents, paints and thinners. The bulk of substances subject to the PRTR Law (73%) consumed by NSK were incinerated.

● Reduction of Machining Oil Containing Chlorine Additives

Following a string of tests to determine product quality and process durability, NSK identified non-chlorinated alternatives for eight varieties of grinding coolant. This has allowed NSK to reduce its use of chlorine-based machining oil by 62% compared to levels in fiscal 2000.

● Controlling Banned Substances at Source

To fulfill strict internal controls aimed at fully preventing the use of banned substances in primary and secondary materials used in manufacturing processes and in packaging and packing materials, NSK manages these substances at source during the purchasing and procurement stages.

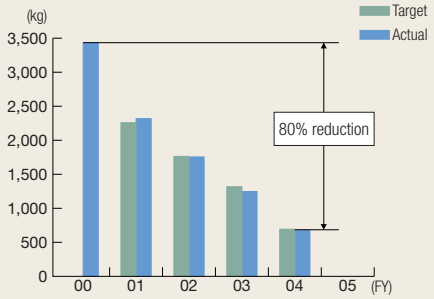
Survey of Substances Subject to the PRTR Law (FY2004)

(kg/yr)

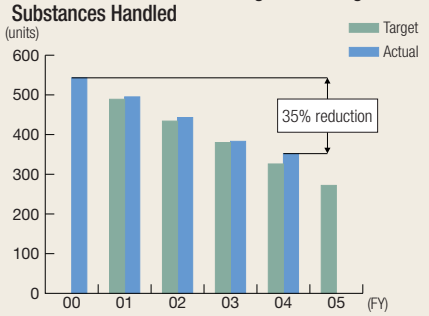
Substance no.	Substance name	Handled volume	Released to atmosphere	Released into water	Transferred to sewer	Transferred as waste	Consumed	Recycled
16	2-amino ethanol	14,611	0	4,032	627	6,339	2,670	943
40	Ethyl benzene	4,123	562	0	0	297	3,264	0
63	Xylene	186,323	26,813	0	0	2,945	149,240	7,325
67	Cresol	2,233	2,038	0	0	141	54	0
108	Inorganic cyanide compounds	1,339	0	0	0	1,339	0	0
224	1.3.5-trimethyl benzene	2,539	1,332	0	0	90	1,117	0
227	Toluene	88,127	42,143	0	0	3,258	42,726	0
266	Phenol	93,437	1,828	0	0	5,905	85,704	0
309	Poly (oxyethylene) nonylphenyl ether	1,350	0	73	0	615	662	0

Note: The annual volume of Class 1 designated chemical substances being handled exceeding 1t, and specified Class 1 designated substances exceeding 0.5t, are listed in the above table.

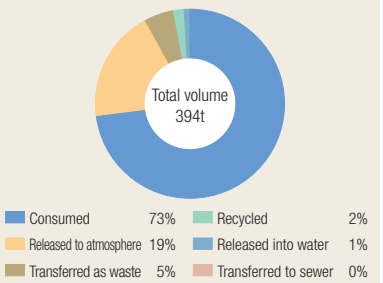
Stockpile of Specified CFCs



Number of Products Containing PRTR-designated Substances Handled



Release and Transfer Amounts of PRTR-designated Substances



*Data of the graph in fiscal 2004 was totaled in July 2005.

Glossary

PRTR Law: Law concerning the reporting of releases to the environment of specific chemical substances, designed to encourage improvement in chemical management.

Consumed: Amount of substances subject to the PRTR Law converted to other substances following chemical reactions (incineration, etc.) incorporated in or included with products that are removed from the site.

Initiatives at the Manufacturing Stage

Compliance and Environmental Risk Management

The NSK Group is striving to reduce environmental risk by complying with environmental laws, regulations and local environmental protection agreements, and by establishing voluntary standards for dealing with critical risk items. The Group also implements various measures to minimize its environmental impact on the atmosphere, water and soil. Additionally, NSK carries out training programs and drills to enhance its ability to prevent incidents that could contaminate the environment and to minimize the extent of damage in the event of an incident. Based on feedback from people living near its sites, NSK aims to achieve plant operations that reduce environmental risk.

Preserving Air Quality

The equipment used at NSK with the most pronounced impact on air quality includes air conditioning equipment and heat treatment facilities. NSK is minimizing this impact by using natural gas, LPG, kerosene and heavy oil (A), which has low-sulfur content, as fuel. In fiscal 2004, NSK recorded NOx emissions of 89.3 tons and SOx emissions of 6.0 tons. Particulate and smoke tests indicated that the density of soot and dust and the volume of NOx and SOx emissions at all NSK plants satisfied emission standards. NSK will continue to work to reduce the impact of its activities on the atmosphere.

Preserving Water Quality

Wastewater carrying the greatest impact on water quality includes emulsified wastewater generated from grinding and heat treatment processes, and wastewater from the barrel process. NSK is installing highly efficient "evaporator-concentrator" facilities in a drive to treat water-based emulsified effluent. To dispose of potable and other mains water, NSK is connecting its facilities directly to sewer plumbing and utilizing hybrid water treatment equipment. In fiscal 2004, the Saitama Plant and the Shin-Asahi Plant operated by Shinwa Seiko Co., Ltd. were connected to the sewer plumbing infrastructure. NSK's BOD release into rivers during the year totaled 3.7 tons.

Responding to Environmental Risks

NSK has established a Risk Management Committee to properly respond to various risks. NSK has also compiled the *NSK Risk Management Manual* to instill an awareness of risk management among employees throughout the NSK Group. The manual provides advice on preventing environmental contamination and other accidents, and sets out the correct methods and procedures for responding to crisis situations. Based on this manual, training and drills are carried out at NSK on a daily basis.

● Preventing Accidental Oil Leaks

In accordance with *NSK's Voluntary Standards for Underground Tanks and Pipes Containing Dangerous Substances*, regular seal tests are performed on underground tanks and pipes to prevent accidental oil leaks. In fiscal 2004, seal tests were conducted on 64 underground tank and pipe facilities, with no anomalies detected. NSK has drawn up protocols for daily inspections on equipment at each plant and built dikes in an additional effort to prevent spillage. Discharge ponds and oil-water separation equipment have also been installed to contain the spread of pollution in the event of an accident.

● Auditing Environmental Risk

NSK carried out environmental risk audits at four plants in fiscal 2004. These audits examined a number of areas, including whether there were any "Wake-up Call" incidents (events that could have led to an accident), the number of times maintenance had been carried out on environmental equipment, and accident prevention devices. The audits also looked at the status of environmental training programs. These audits recommended a number of remedial steps, including improvements to mechanisms to prevent potential environmental risks and to methods for maintaining and inspecting environmental equipment to ensure better prevention and protection.

● Emergency Drills

To minimize environmental impact in the event of an accident, NSK has equipment on hand such as sandbags and oil-absorbing mats. NSK has also established an emergency response structure and conducts regular training drills.

NSK plants carried out 135 drills in fiscal 2004. The Ohtsu Plant conducted a nighttime drill based on the scenario that waste oil had leaked into the internal wastewater system from an effluent holding tank. The drill assumed that the waste oil had leaked into a river running adjacent to the plant after passing through an oil-water separation tank. The drill focused on verifying methods for preventing the dispersal of oil and the plant's emergency response structure.

Feedback From Local Residents

NSK plants are situated mainly in industrial areas. Nevertheless, in recent years, NSK fields complaints from time to time related to the living environment around its plants amid the increasing urbanization of surrounding areas. In fiscal 2004, NSK was contacted eight times by local residents regarding noisy ancillary facilities, music from plant loudspeakers, odor emissions and other issues. These concerns prompted NSK to implement measures to improve its facilities and review its environmental management systems, and extend this approach to other plants. These improvement efforts are ongoing. During fiscal 2004, NSK was not subject to any fines or penalties due to accidents resulting in the release of pollutants or in connection with its environmental conservation activities.

Glossary

BOD: Biochemical oxygen demand. Used as an indicator to determine the density of organic water pollutants and indicates the volume of oxygen consumed in order to oxidize the pollutants contained in the water using microbes.

Initiatives in the Logistics Field

Logistics Measures

NSK is working with every member of the Group to create an integrated logistics system to boost logistics efficiency and promote environmentally friendly packaging initiatives. In fiscal 2004, NSK established the Innovative Packaging Project Team to enhance its environmental efforts in the area of packing and packaging.

Working to Create an Environmentally Sound Integrated Logistics System

● **Reduce the Environmental Impact of Transportation (Reduce emissions of CO_2, NOx and PM)**

- Improve loading efficiency by combining product logistics with procurement logistics
- Reduce vehicle mileage and size of fleet through joint deliveries and "milk run"-style delivery routes
- Promote eco-oriented driving styles and switch to low-emission vehicles

● **Reduce the Environmental Impact of Packing and Packaging**

- Promote the 3Rs (Reduce, Reuse and Recycle) in packaging and packing materials

● **Environmental Activities at NSK Logistics Co., Ltd.**

- Operation of integrated environmental and quality management system

Reducing the Environmental Impact of Transportation

● **Promoting Joint Transportation Across the Group**

Building on its success in gaining ISO 14001 certification in fiscal 2003, NSK Logistics obtained ISO 9001 certification in fiscal 2004. This gave the company a certified integrated framework for effective environmental and quality management.

In the past, NSK affiliates carried out their own independent logistics activities. NSK decided to review this situation to effectively reduce the environmental impact of transportation across the Group. The result was the integration of product delivery at NSK Needle Bearing Ltd. and NSK-Warner K.K. with the logistics system operated run by NSK Logistics in fiscal 2003 and 2004, respectively. With operations centered on NSK Logistics going forward, NSK plans to further enhance the efficiency of the Group-wide supply chain based on initiatives in procurement logistics and other areas.

● **Promoting Initiatives With Logistics Contractors**

NSK is promoting joint initiatives with logistics contractors in order to quantitatively identify and assess, and then reduce, the environmental impact of delivering NSK Group products to customers. Specifically, NSK is working with trucking firms to promote more eco-oriented driving styles, including compliance with Japan's Automotive NOx and PM Law and diesel regulations in the Tokyo metropolitan area, and encouraging drivers to shut off engines when stopped.

Reducing the Environmental Impact of Packing and Packaging

● **Adopting New Packaging Approaches to Promote the 3Rs**

The NSK Group uses returnable plastic boxes to supply the majority of its volume-manufactured products to customers. However, these plastic boxes have size limitations when it comes to all the widely varying dimensions of NSK's precision parts and some other products. NSK also selected strong wood-cardboard packaging for its precision products for quality assurance reasons. But the stronger this packaging is, the harder it is to break up after use, and we have worked to respond to customer requests seeking to solve this issue. Consequently, we developed and are introducing new packaging composed entirely of cardboard that retains the strength of previous packaging but is easier to recycle.

Innovative Packaging Project Team

New packaging made entirely of cardboard for ball screws

Koichi Uchida
Manager, Innovative Packaging Project Team

The Innovative Packaging Project Team was established under the Global Environment Protection Committee to actively respond to customer needs from an environmental perspective as well as to reinforce the competitiveness of our products. This team is now rolling out initiatives across the Group.

Since around 2000, NSK sales personnel have been receiving requests from customers about packaging, including calls for changes in packaging specifications to reduce waste and the adoption of returnable packaging. This coincided with NSK receiving ISO 14001 certification and the launch of related environmental management efforts such as green procurement. NSK responded to these needs by introducing returnable plastic boxes for some of its products. However, using this kind of packaging posed more of a challenge for precision parts and other products, which come in a wide range of sizes and are delivered in small lots. There was also a great deal of confusion about the shift to new packaging among related divisions—from design, quality assurance and environmental management, to manufacturing, logistics and sales. This issue was raised at a meeting of the Global Environment Protection Committee in May 2004, when the committee chair declared that NSK had to be more proactive in solving this kind of problem due to the growing importance of tackling environmental issues. This resulted in the decision to create the Innovative Packaging Project Team. Personnel from related divisions were invited to join the team and activities got under way centered on the team manager and packaging specialist Koichi Uchida. The team focuses on a number of issues aimed at ultimately raising customer satisfaction, including the replacement of combined wood and cardboard packaging for precision parts, large bearings and other products with all-cardboard designs, and creating the necessary mechanisms to propose other packaging improvements from the standpoint of customers. The team is now implementing a number of 3R measures related to Group-wide packaging materials. We hope to be able to report significant progress in this area in next year's Social and Environmental Report.

Glossary

PM: Particulate matter emitted from diesel-powered vehicles.
Milk Run: System of delivery resembling milk delivery routes, where delivery is performed through a single circulatory route by traveling to multiple pick-up points and delivery destinations. In comparison with repeated trips between pick-up points and delivery destinations, the system reduces mileage and the number of trips, as well as environmental impact.
Eco-oriented Driving: Refers to an environmentally sensitive style of driving for reducing fuel consumption by avoiding sudden acceleration and stopping, as well as shutting off engines when stationary.

Photo: Neuweg Fertigung GmbH, an NSK subsidiary based in Germany, performs a realistic fire training drill with the cooperation of 150 members of local fire crews. The drill focused on ways of minimizing environmental impact on nearby communities in the event of an emergency. To find out more, turn to page 48.

All of NSK's business sites, including those operated by Group companies or located overseas, strive to enhance communication with stakeholders as members of local communities by carrying out locally focused environmental and social programs.

Initiatives at NSK Sites

Ishibe Plant

Location	1-1-1 Ishibegaoka, Konan-shi, Shiga 520-3180, Japan
Total floor space	69,493 m²
Employees	756 (as of March 31, 2005)
Business outline	Manufacture of automotive bearings and ball bearings
ISO 14001 certification	October 1998

Overview of Activities

The river Yasu that flows near the plant feeds into Lake Biwa, one of Japan's most famous stretches of water. Protecting the local environment in order to safeguard the future of the lake is a consistent theme of activities at the plant. On a site surrounded by water and beautiful scenery, NSK aims to produce automotive ball bearings while coexisting with the environment.

Residential developments have sprung up around the plant in recent years. Besides conserving energy and taking other steps to reduce the impact on the local environment, NSK also tries to minimize pollution due to noise, vibration or odorous emissions. Site personnel are upgrading the level of communications with the local community on these issues.

Open Days (site tours)

Since 2002, the plant has held annual open days as part of its policy to be more accessible to the local community. Tours take place during the summer festival. The plant invites many people who would normally not get the opportunity to enter the grounds of Ishibe Plant, including employees' families, local residents, suppliers and government officials. Visitors receive a tour of the bearing production lines, an introduction to the plant's history and are given a presentation on environmental activities at the site. Using engaging games and quizzes, the day's activities aim to help people become more familiar with the work that goes on at the site. Visitors totaled approximately 1,200 in fiscal 2004.

Waste Recycling and Zero Emissions Program

In fiscal 2004, the site achieved a recycling ratio of 97.0%. Of the remainder, 2.6% of waste generated was incinerated and 0.4% was sent to landfill for disposal. The plant operates detailed trash separation procedures to facilitate the recycling of most used items, including whetstone, soft and hard plastics, waste paper, wood chips, safety footwear, uniforms, plastic gloves, fluorescent lighting, bottles, grinding scraps, waste metals, waste liquids and sludge. The major item that is not yet recycled is combustible garbage. The next challenge is to upgrade trash separation processes to reduce the volumes of garbage sent for incineration.

Community-oriented Environmental Measures

Reducing pollution arising from odors and noise has been at the top of the local environmental protection agenda. Noise insulation covers and baffles have been installed on the factory roof and other facilities to reduce noise and vibration. Improved heat-treatment processes have also been introduced to cut emissions of soot, which was identified as one of the main causes of bad odors around the plant.

Site Environmental Representative: Toshiki Yamaguchi

Saitama Plant/NSK Precision, Co., Ltd., Saitama Precision Machinery & Parts Plant

Location	1-1 Ohnuma, Hanyu-shi, Saitama 348-8506, Japan
Total floor space	82,607 m²
Employees	517 (as of March 31, 2005)
Business outline	Manufacture of automotive bearings, continuously variable transmissions and precision machinery
ISO 14001 certification	September 1998

Overview of Activities

The site makes automotive bearings, precision machinery and other items. Manufacturing steps include heat-treatment and grinding processes, which consume large amounts of energy and water-soluble metal processing coolant. The site is dedicated to environmental protection measures, evidenced by the fact that it was one of the first facilities in the NSK Group to gain ISO 14001 certification.

Waste Reduced Using Grinding Swarf Compressors

Swarf from grinding processes make up a large proportion of industrial waste generated at the plant. Previously, such shavings were recycled as raw materials for cement. The site has now installed six compacters across three locations to compress these scraps into solid briquettes. This move has also enabled the collection and reuse of liquid waste from grinding, thereby cutting waste emissions by about 35% and allowing the scraps to be recycled as more valuable raw materials for steel.

Installation of Food Waste Processors in Staff Restaurant

Incineration of kitchen waste from the site restaurant without any recycling is a source of CO_2 emissions. The site has installed waste processors that use microbial decomposition to create organic fertilizer from kitchen garbage. The projected annual reduction in waste sent for incineration is 14 tons.

Community-oriented Activities

● Donation of vehicle for the disabled

The site donated a vehicle specially modified for disabled people to the local town's social welfare association. Unlike the estate wagon donated three years previously, the donation this time comprised a converted subcompact vehicle plus an electrically operated wheelchair. This combination is better suited to navigating the narrow streets of Hanyu. The town welcomed the donation.

● Sponsorship of municipal sports events

The site sponsors a number of local sports events, including a women's volleyball competition, a marathon and the only hot-air balloon race in the prefecture. Many site personnel participate in these and a variety of other events that help to promote good relations with the local community.

Site Environmental Representative: Mitsuru Mori

NSK Steering Systems Co., Ltd./ Technology Division

Location	<Soja Plant> 1-8-1 Soja-machi, Maebashi-shi, Gunma 371-8528, Japan	Total floor space	24,353 m²
		Employees	1,186 (as of March 31, 2005)
		Business outline	Manufacture of automotive components
Total floor space	41,819 m²		
Location	<Akagi Plant> 1240-1 Iidoi-machi, Maebashi-shi, Gunma 379-2111, Japan	ISO 14001 certification	December 1999


Soja Plant


Akagi Plant

Overview of Activities

NSK Steering Systems develops and manufactures automotive components such as electric power steering units. Although energy consumption during production is low relative to other NSK manufacturing operations, the site uses large quantities of emulsion and water-soluble metal processing coolant. Efforts to lower environmental impact continue at the Soja Plant, involving the installation of more energy-efficient ventilation equipment and programs to switch from kerosene to more eco-friendly fuels such as natural gas.

New Educational Initiative

NSK Steering Systems has launched a new training course for workers on the environment, disaster prevention, safety and other issues. Aiming to raise employee motivation, the program includes new skills development courses and assessment tools within an expanded and upgraded training curriculum.

Course attendees return to work more motivated after receiving training for a week. Besides classroom study, the course involves practical sessions such as off-site cleaning programs and voluntary trash separation activities. The course alerts employees to the importance of protecting the environment in everyday settings by highlighting issues such as litter scattered on daily routes to work. After the course, trainees undertake a practical three-month project on an environmental theme.

Clean-Up Campaign for River Tone

Approximately 1,500 people from three local automotive components manufacturers took part in a major litter collection program to clean up the banks of the River Tone in three areas of Gunma Prefecture (Maebashi, Isesaki and Tatebayashi). This marked the first time that companies within the industry had organized joint activities to contribute to society.

NSK Steering Systems focused on one site in Maebashi, organizing a total of about 250 people (including 125 employees). Volunteers picked up cans, bottles and other garbage from the banks of the river. In just one hour, teams collected enough trash to fill up three two-ton trucks. The day's efforts underscored the importance of sustained environmental protection efforts to tackle problems created by carelessness and lack of consideration.

Site Environmental Representative: Masaomi Takebe

Kirihara Plant

(formerly the NSK Precision Co., Ltd. Kirihara Precision Machinery & Parts Plant)

Location	12 Kirihara-cho, Fujisawa-shi, Kanagawa 252-0811, Japan
Total floor space	44,044 m²
Employees	195 (as of March 31, 2005)
Business outline	Manufacture of electronic components and precision machinery-related items
ISO 14001 certification	November 1999

Overview of Activities

The Kirihara plant is situated in the northern part of the picturesque Shonan coast. Many of the products manufactured at the plant feature advances in energy efficiency and resource conservation, notably a range of Megatorque motors. The site is actively engaged in the development of products with eco-friendly performance.

Reduced CO_2 Emissions Through Natural Gas Fuel Conversions and Use of Insulating Paint

As part of its efforts to counter global warming, the site is implementing energy-saving measures for on-site equipment with high power loads.

The fuel for air-conditioning equipment has been switched from kerosene to natural gas, which has a lower global warming coefficient. Special insulating paint has also been applied to the roof. The projected annual reduction in CO_2 emissions from these measures is 84 tons. Further energy savings are expected from ongoing measures to install inverters and high-efficiency equipment in ventilation systems and to isolate compressors to enable the system to run on lower power loads depending on demand.

Increase in Recycling Ratio to 96.2%

Waste-reduction measures have focused on boosting trash separation and on converting used paper and cardboard into reusable resources. These efforts have helped to increase the site's recycling ratio to 96.2%. Plans call for rapidly raising this figure to the 98% level by cutting the volume of general garbage sent for local incineration and by initiating the recycling of packing containers and boxes to promote resource conservation.

Contributions to the Local Community

Every May, site employees participate in campaigns organized by the Fujisawa municipal authorities to clean up the various beaches along the Enoshima coast. Heightened environmental awareness among employees boosted the number of site volunteers to 60 for the 29th campaign conducted in May 2005. In fiscal 2005, NSK also plans to conduct activities to beautify the actual site and its surroundings.

Site Environmental Representative: Hideaki Kaneko

NSK Micro Precision Co., Ltd., Fujisawa Plant

Location ..... 645 Miyamae, Fujisawa-shi, Kanagawa 251-0014, Japan
Total floor space ..... 5,351 m²
Employees..... 194 (as of March 31, 2005)
Business outline ..... Manufacture of miniature bearings and bearing units
ISO 14001 certification..... June 2001

Overview of Activities

Situated in the beautiful Shonan coastal region, the Fujisawa site operated by NSK Micro Precision produces miniature ball bearings of world-renowned quality and other bearing units underpinned by advanced technology. Harmony with the natural environment is a major theme of site activities to ensure that the beauty of the local region is preserved for the benefit of future generations.

Shift to Chlorine-free Alternatives

Environmental activities in fiscal 2004 included completion of the shift to alternative non-chlorine materials throughout the product range. This involved the elimination of PVC tape and the introduction of alternatives for chlorine-based metal processing oils.

Achievement of Zero Emissions

In the year ended March 2005, the site achieved zero emissions (defined as the volume of waste sent to landfill accounting for 1% or less of total waste). Production processes for miniature bearings and related items typically generate small amounts of a large number of varied wastes, which add up to significant separation and transport challenges. The site cooperated with the NSK Fujisawa Plant, which is situated nearby, to solve the various problems involved. Joint transport initiatives enabled recycling of difficult items generated by grinding and other processes, such as waste filters, whetstone and fluorescent tubes. Going forward, the site aims to maintain zero emissions while boosting the overall recycling ratio to a target level of 98%.

Audit Completed for Updated ISO 14001 Standard

The ISO 14001 standard was revised in November 2004. The site completed an environmental audit to the updated standard in June 2005. The revisions have also prompted a fresh look at the site's environmental programs.

Local Community Contributions

Site employees have participated in local beach clean-up campaigns since fiscal 2002. The clean-up day takes place on the final Sunday of May every year, and the site plans to continue participating for the foreseeable future.

Site Environmental Representative: Nobumitsu Saito

NSK-Warner K.K.

Location ..... 2345 Aino, Fukuroi-shi, Shizuoka 437-8545, Japan
Total floor space ..... 47,462 m²
Employees ..... 847 (as of March 31, 2005)
Business outline ..... Manufacture of one-way clutch bearings, friction plates and related products
ISO 14001 certification ..... March 2001

Overview of Activities

NSK-Warner is based in Fukuroi, Shizuoka Prefecture. The town is located midway between Tokyo and Kyoto, near the natural preserve of the green hills of Ogasayama. Besides manufacturing one-way clutch bearings for vehicle transmissions, the plant develops and produces a range of materials and products used to control friction in automotive settings. NSK-Warner has set strict performance targets for its environmental protection activities.

Contributions to the Local Community

- Since 1992, the company has held an annual Aino Festival on the grounds of the site. A variety of events are held to appreciate the efforts of employees and their families as well as to foster closer ties with local residents.
- Site volunteers joined with local residents to organize clean-up programs after the Enshu fireworks display and local events held at Ogasayama Sports Park (about 20 people in each case).
- Site volunteers help take care of seasonal flowerbeds lining the road that connects the JR Aino station to Ogasayama Sports Park, which was built for the 2002 FIFA World Cup.

Reduction in CO_2 Emissions

CO_2 emissions per unit of production were 6% lower in fiscal 2004 than in the previous year, due to active efforts to raise manufacturing productivity and save energy. Initiatives included elimination of unused mercury lamps, installation of inverters for fluorescent lighting, weekend air conditioning stoppages and measures to plug air leaks. Other savings included a reduction in CO_2 emissions of about 27 tons generated through a modal shift from road to rail for the transport of desiccated sludge for recycling.

Efforts to Maintain Zero Emissions and Raise the Recycling Ratio

The recycling ratio for the site was increased to 96% during fiscal 2004 thanks to the success of a wide variety of measures. These included efforts to restrict waste generation through improved machining methods for retainers used in one-way clutch bearings, reductions in sludge generated due to the omission of barrel processing, as well as reduced use of packaging materials associated with revised packaging arrangements. Other recycling efforts included conversion of waste paper and plastics into solid refuse-derived fuel pellets and greater recycling of safety footwear, uniforms and gloves (both rubber and plastic).

Elimination/Reduction of Halogenated Compounds and PRTR-Designated Chemicals

Ozone-depleting halogenated compounds, used in fire-fighting equipment installed inside drying ovens, have been replaced with carbon dioxide. The site has also made progress in adopting alternatives for chemicals designated under the PRTR Law that are contained in cleaners, rust-protecting agents and other materials. Total PRTR chemical usage in fiscal 2004 was 40% lower than in fiscal 2000.

Site Environmental Representative: Shigemitsu Ohmura

NSK Needle Bearing Ltd., Takasaki Plant

Location ..... 358 Yawata-machi, Takasaki-shi, Gunma 370-0884, Japan
Total floor space ..... 31,065 m²
Employees ..... 721 (as of March 31, 2005)
Business outline ..... Manufacture of needle bearings
ISO 14001 certification ..... July 2004

Overview of Activities

NSK Needle Bearing began operations in 1963 as a joint venture between NSK and leading U.S. bearing manufacturer Torrington (since acquired by Timken). After the joint venture was dissolved in 2003, the company became an NSK consolidated subsidiary. Amid verdant scenery that features the three Jomo peaks of Mt. Akagi, Mt. Haruna and Mt. Myogi, the company makes some of the world's most advanced needle bearings to high-quality standards. Reflecting the beautiful location of the site, environmental protection activities are accorded the highest management priority.

ISO 14001 Certification Attained

NSK Needle Bearing obtained ISO 14001 certification for its Haruna Plant in January 2001. Certification was extended in July 2004 to include the Takasaki Plant. Both sites now have fully operational environmental management systems in place.

Reduction in CO_2 Emissions

Variable-pressure compressed air systems are employed to reduce electricity consumption by controlling the number of compressors in use, along with the application of inverters. In fiscal 2004, the site installed a centralized power management system to monitor power consumption on a 24-hour basis. This will enable the development of further energy-saving measures. The plant is also considering a future switch from butane to cleaner-burning natural gas for the fuel used in heat-treatment facilities, air-conditioning equipment and steam boilers.

Achievement of Zero Emissions

Waste swarf from grinding processes are recycled as raw materials for steel. Emulating the Haruna Plant, the site finally achieved zero emissions in December 2004 after the implementation of trash separation procedures for waste plastics and the development of recycling applications. Future plans call for further eco-friendly initiatives.

Site Environmental Representative: Takefumi Hirabayashi

NSK Machinery Co., Ltd.

Location ..... 5 Showanuma, Shobu-machi, Minamisaitama-gun, Saitama 346-0198, Japan
Total floor space ..... 6,954 m²
Employees ..... 108 (as of March 31, 2005)
Business outline ..... Manufacture of precision machinery (bearing grinders) and related components (spindles)
ISO 14001 certification ..... March 2003

Overview of Activities

NSK Machinery obtained ISO 14001 certification in March 2003 following the development of a program of environmental protection activities. The site is now incorporating environmental management systems into operating policies to consolidate progress and ensure ongoing improvement.

Environmental Risks

Oil leakages are the most serious potential risk due to the site's proximity to a public park. Environmental protection programs pointed to underground storage tanks at the site as an issue. The use of two tanks was discontinued in 2004, along with three boilers. Other moves to reduce environmental risks included the discontinuation of fuel oil usage to lower SOx emissions.

Disaster Training Drills

The company takes various precautions to prevent accidents that could lead to contamination of the surrounding environment. In addition, having identified facilities that pose a potential risk of oil leakages, the site organizes training drills involving all personnel to minimize the damage caused in any emergency situation. Drills were also conducted in fiscal 2004 to train site personnel for a possible earthquake.

Local Community Contributions

Every month the company organizes teams to clean up the roads around the site, with each department taking turns at the duty. The aim is to involve everybody in this activity. In 2005, the program was extended to include clean-up activities inside the nearby park.

Waste and Recycling Measures

Each department trains its staff in the details of trash separation, which is the basis of recycling activities. Daily inspections of waste bins are conducted to check that separation procedures remain effective. The company achieved zero emissions in fiscal 2003.

The company checks the credentials of waste treatment contractors to ensure that all waste is processed correctly. Inspections of disposal sites are also carried out as an extra preventive measure against illegal waste disposal.

Site Environmental Representative: Yoshikazu Sato

Initiatives in Europe

United Kingdom

NSK Europe Ltd., Newark Site (Service and Management Divisions)

Location	Northern Road, Newark, Nottinghamshire, NG24 2JF, U.K.
Total floor space	3,712 m²
Employees	183 (as of December 31, 2004)
Business outline	Design, testing, sales and support services
ISO 14001 certification	November 2000

Overview of Activities

The NSK Europe site is located in the town of Newark, Nottinghamshire, and is contained within the NSK Bearings Europe manufacturing site. NSK Europe's operations were originally located at Ruddington, which is where ISO 14001 certification was first attained in November 2000.

In 2002, operations were relocated to the Newark manufacturing site. As the manufacturing plant had no ISO 14001 certificate, and the functions carried out by NSK Europe were quite separate to manufacturing activities, it was decided to maintain a separate NSK Europe ISO certificate at the new location.

The ETC test facility

Operations undertaken by NSK Europe include Europe Technical Center (ETC) design, testing and laboratory work, sales functions for the European Automotive Business Unit and the European Bearings Business Unit, and support functions (Group Quality Assurance, Information Systems, Facilities and Human Resources).

Re-establishing the EMS at Newark

Following relocation to the Newark site a new Environmental Team was set up. This comprised management representatives from Group Quality, ETC and Facilities divisions. This team set up the new environmental management system (EMS) for the site and took the following actions:

- Integrated waste processing routes into the Newark Plant's existing facilities where possible.
- Introduced additional waste processing routes for paper waste, dry cell batteries, printer consumables and Waste Electrical and Electronic Equipment (WEEE).
- Trained internal environmental auditors to British Standards Institute (BSI) standard and carried out regular audits.
- Trained environmental management representatives to Institute of Environmental Management and Assessment (IEMA) standard.
- Introduced emergency preparedness measures in critical areas—ETC test shop and oil stores. For example, spill containment kits were introduced and users trained.
- Installed a new ETC oil-storage facility, which is protected from oil spillage with a containment wall around the storage area.

All of these activities resulted in successful ISO 14001 re-certification. Two subsequent audits of the EMS by external BSI auditors found no non-conformities.

Design for the Environment

ETC has established a recognised design, testing and approval process, which meets the requirements of European automotive customers and is certified to TS16949 requirements. This approval process is known as Advanced Product Quality Planning (APQP) and all new designs have to follow this detailed procedure. Embedded within this process is the Design for the Environment Review. This takes the engineers through the following aspects of product design:

- Raw material selection
- Energy use in manufacturing
- Economics of manufacturing processes
- Suitability and performance of product design in application
- Recyclability
- Disposal

Following this review the design is given a score, which determines its environmental suitability. This prompts the engineer to either continue as planned or redesign the product.

Responding to the European ELV Directive

NSK Europe continues to enhance the control of environmentally harmful substances. In addition to meeting the End-of-Life Vehicle (ELV) Directive and customer-specific demands, the company also registers the design of its components with the International Materials Data System (IMDS). IMDS registration is a prerequisite for the approval process of most automotive makers, as it allows them to accurately and easily collect data on the amount of environmentally harmful substances in all the parts and components they source. All chemical substances and base materials are declared, including their weight. Any materials that are declarable based on European legislation or customer specification documents are also highlighted.

The aim for fiscal 2005 is to incorporate the revised NSK Engineering Standard (NES) covering the control of environmentally harmful substances into the APQP process, thus aligning NSK Europe with global NSK policy.

Energy Conservation Activities

Although not a large consumer of gas and electricity compared to manufacturing facilities, NSK Europe still considers the use of natural resources to be an important environmental aspect. Over the past year, a number of energy saving measures were implemented to improve operational efficiency. Key actions were as follows:

- Established detailed segregation and reporting on energy usage
- Introduced zoned heating controls in office areas to reduce usage of natural gas
- Introduced infra-red detectors to control lighting in seldom-used corridors
- Inverters adopted for test rig motors to improve efficiency
- Efficiency of compressors enhanced by pumping in cold air
- Replaced compressed air blowers with low-pressure fans for cooling test rigs
- Implemented a design and manufacturing review process for test rigs, including environmental parameters, to minimise energy use during operation and facilitate easier manufacturing
- Test shop temperature control upper and lower limits set wider to reduce energy consumption

It is envisaged that these measures will lead to a 10% reduction in energy usage over the next fiscal year.

Test rig for alternator bearings: The rig uses inverters to control the motors and boost efficiency and is enclosed to reduce noise pollution.

Environmental Coordinator: Jeff Parkes

Glossary

ELV Directive: Directive issued in Europe to promote less waste from and proper disposal of end-of-life vehicles.

United Kingdom

NSK Bearings Europe Ltd., Peterlee Plant

Location	3 Brindley Road, South West Industrial Estate, Peterlee, Co. Durham, SR8 2JD, U.K.
Total floor space	29,845 m²
Employees	601 (as of December 31, 2004)
Business outline	Manufacture of hub and automotive bearings
ISO 14001 certification	February 1999

Overview of Activities

The Peterlee Plant is located close to the city of Durham in the north of England. It has been producing both automotive and single row ball bearings for almost 30 years. Today though, in line with NSK's realignment of its European manufacturing framework, the plant is in the process of becoming a facility dedicated to the manufacture of the latest generation of automotive products.

Environmental Management

Peterlee was NSK's first plant in Europe to gain ISO 14001 certification. It continues to explore ways of minimising impact on the environment and providing positive input into local community initiatives.

Over the years, NSK Peterlee has implemented numerous measures to reduce energy usage and waste, including the complete recycling of chips from grinding swarf, collection and reuse of coolant, and reduced scrap rates for rings and balls, thus minimising the use of natural resources.

Waste and Recycling Measures

Waste reduction and recycling continues to be a key theme at Peterlee, driven both by NSK's global environmental policy and U.K. legislation. Recent U.K. legislation prevents the practice of 'co-disposal' of hazardous and non-hazardous waste in the same landfill. It also requires that hazardous wastes be pre-treated to reduce their quantity and potency before being sent to landfill. In addition, the number of landfill sites permitted to dispose of hazardous waste is being reduced from approximately 250 to 15, leading to a sharp increase in landfill costs.

To counter the affect of these changes and reduce its environmental impact, NSK Peterlee is in the process of boosting recycling ratios for cardboard, waste plastic and sludge.

Sludge recycling is already under way at Peterlee. In addition to environmental benefits, this is saving the plant £35,000 (approximately ¥6.9 million) annually. NSK Peterlee aims to extend this recycling to other processes on the site. Plans are also on the table to install a general waste compactor to promote the efficient recycling of cardboard and waste plastic.

Site Environmental Representative: Kevin Nicholson

Germany

Neuweg Fertigung GmbH

Location	Ehinger Strasse 5, D-89597 Munderkingen, Germany
Total floor space	12,330 m²
Employees	156 (as of December 31, 2004)
Business outline	Manufacture of ball bearings
ISO 14001 certification	January 2001

Energy Saving Measures

Pumps in Neuweg's central grinding coolant system were always kept running at maximum power. Flow was controlled using pressure throttle valves. This allowed the provision of coolant according to the requirements of the site's machinery. However, due to the control behaviour of the throttle valves, sudden load cycles generated pressure pulses that sometimes damaged parts of the coolant pipe system.

To solve this problem, Neuweg replaced the throttle valves with inverters to control the pump motors. This has allowed more accurate coolant flow adjustment and led to a reduction in electric power consumption of 40%. The risk of coolant leakage from damaged pipes has also been reduced.

Emergency Fire Drill Supported by 150 Fire Fighters

Hans-Peter Schleicher, the Neuweg fire prevention commissary, arranged an emergency fire drill with nine local fire brigades. The drill, which involved 150 fire fighters and 18 fire engines, was designed to assess the functions of installed fire alert and safety systems and verify safety response procedures in the event of a fire. The training exercise scenario envisaged the outbreak of a fire caused by an electrical fault in the plant's packing and component store. Simulated conditions included emissions of noxious fumes from burning plastic products and 10 employees trapped in the store. Every effort was made to ensure as realistic conditions as possible.

The drill got under way with the triggering of an automatic warning system, which notified the fire brigade control centre and automatically opened the gates to the plant. Four minutes later, the first fire engines arrived and began evaluating the situation. Fire fighters equipped with heavy breathing apparatus rescued the 10 injured employees, while other personnel rapidly connected hoses and fought the fire using two separate fire hydrants, supported by additional water sourced from the Danube River located 300m away.

This emergency drill showed that the automatic warning system worked reliably. It also demonstrated excellent cooperation between participants involved in fire fighting and rescue activities. Although this training exercise was completed safely, every Neuweg employee continues to work on a daily basis to ensure their training will never be needed for an actual emergency.

Preventative Health Measures That Benefit Employees and the Company

Based on a local health insurance initiative, a health check-up of Neuweg employees showed that problems with their musculoskeletal systems were the main causes of illness. Subsequently, on the recommendation of an expert in industrial medicine, Neuweg began providing a training and exercise program.

Six lessons were made available to all employees on a voluntary basis, teaching personnel how to effectively train their bodies. The exercises were designed to be as simple as possible to encourage employees to continue them regularly at home after the lessons had finished, for maximum long-term benefit. Approximately 30% of Neuweg's workforce, or 48 employees, took advantage of the lessons.

Using Waste Separation to Protect the Environment and Cut Costs

In the past, Neuweg incurred costs for the disposal of general waste such as office rubbish. To resolve this issue, Neuweg's environmental health officer decided to introduce the Duales System (a German packaging recycling system operated by the not-for-profit Duales System Deutschland AG) for all general waste. With this system, the cost of recovering and recycling packaging is borne by packaging material makers and other manufacturers. Containers and other packaging with a *Grüne Punkt* symbol (see photo) are recycled using this system.

By separating and disposing this general waste in dedicated yellow rubbish bags, Neuweg has increased recycling by 2 tons per year and generated annual cost savings of €1,250 (approximately ¥170,000).

Site Environmental Representative: Hans-Peter Schleicher
Site Environmental Representative (English speaker): Dieter Ostheimer

Poland

NSK ISKRA S.A.

Location	Ul. Jagiellonska 109, 25-734 Kielce, Poland
Total floor space	136,485 m²
Employees	1,634 (as of December 31, 2004)
Business outline	Manufacture of rolling bearings
ISO 14001 certification	August 2004

Overview of Activities

NSK ISKRA acquired ISO 14001 certification for its bearing manufacturing processes in 2004. The company operates its facility in conformity with the requirements of this certification. NSK ISKRA has also formulated an environmental protection program with the following two key objectives:

- Promote the thorough separation of waste
- Reduce the risk of environmental contamination

The company has implemented training for its employees and external contractors involved in activities that could potentially affect the environment. In order to promote greater awareness of the company's environmental management system (EMS), dedicated notice boards have been set up in each manufacturing area. These notice boards detail the objectives and targets of the company's environmental protection activities and include information on environmental policy, ISO 14001 certification, emergency procedures and processes for separating waste.

Promoting the Thorough Separation of Waste

- Purchased and installed containers for waste separation
- Created manual setting out waste separation procedures
- Selected and identified waste storage areas
- Installed different coloured barrels for storing waste oil and effluent
- Recorded volume of waste emissions from each section to promote waste reduction

Reducing the Risk of Environmental Contamination

- Identified possible areas of contamination and installed holding tanks and trays
- Installed oil supply pumps
- Selected, secured and identified chemical substance storage areas
- Created chemical substance identification cards
- Installed eco-kits in specific shop floor areas to prevent the spread of contamination
- Installed emergency rubber stoppers for waste outlets
- Carried out cleaning activities to minimize the risk of contamination spreading

As a result of these and other initiatives by NSK ISKRA in fiscal 2004, the following was achieved:

- Waste disposed in the municipal dumping ground was reduced by 26%
- All packaging waste materials were recycled
- Improved recycling ratio to 91.2%

Increasing awareness of environmental issues has resulted in more active involvement by the workforce in reducing the environmental impact of the NSK ISKRA site.

Site Environmental Representative: Rudolf Martin

Initiatives in North America

United States

NSK Corporation, Clarinda Plant/NSK-AKS Precision Ball Company

Location	1100 North 1st Street, Clarinda, IA 51632-1981, U.S.A.
Total floor space	24,000 m²
Employees	290 (as of December 31, 2004)
Business outline	Manufacture of ball bearings
ISO 14001 certification	July 2002

Location	1100A North 1st Street, Clarinda, IA 51632-1983, U.S.A.
Total floor space	8,255 m²
Employees	77 (as of December 31, 2004)
Business outline	Manufacture of steel balls
ISO 14001 certification	Scheduled for 2006

NSK Corporation, Franklin Plant/NSK Precision America, Inc., Franklin Plant

Location	3400 Bearing Drive, Franklin, IN 46131-9660, U.S.A.
Total floor space	14,900 m²
Employees	245 (as of December 31, 2004)
Business outline	Manufacture of hub unit bearings and bearings for automotive transmissions
ISO 14001 certification	November 2002

Location	3400 Bearing Drive, Franklin, IN 46131-9660, U.S.A.
Total floor space	7,000 m²
Employees	90 (as of December 31, 2004)
Business outline	Manufacture of precision machinery and parts
ISO 14001 certification	Scheduled for 2006

NSK Corporation, Ann Arbor Plant

Location	5400 South State Road, Ann Arbor, MI 48108-9754, U.S.A.
Total floor space	24,000 m²
Employees	288 (as of December 31, 2004)
Business outline	Manufacture of automotive bearings
ISO 14001 certification	November 2001

NSK Corporation, Liberty Plant

Location	1112 East Kitchel Road, Liberty, IN 47353-8985, U.S.A.
Total floor space	17,100 m²
Employees	210 (as of December 31, 2004)
Business outline	Manufacture of outer and inner rings for ball bearings and automotive bearings
ISO 14001 certification	Scheduled for 2006

NSK Steering Systems America, Inc.

Location	110 Shields Drive, Bennington, VT 05201-8309, U.S.A.
Total floor space	18,395 m²
Employees	600 (as of December 31, 2004)
Business outline	Manufacture of automotive components
ISO 14001 certification	December 2002

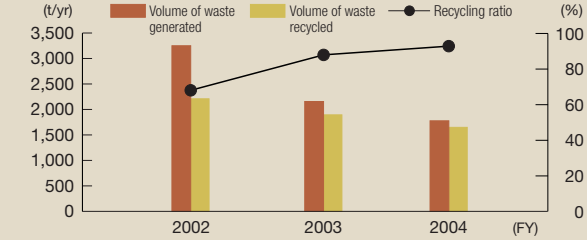
Overview of Activities

NSK's manufacturing facilities in North America (the Franklin, Clarinda and Ann Arbor plants operated by NSK Corporation; NSK Precision America, NPA; NSK-AKS Precision Ball; and NSK Steering Systems America, NSSA) continue to reduce their impact on the environment. Ongoing improvements are being achieved through reduction of water and energy consumption, reuse of materials such as boxes and pallets, recycling of large volumes of waste, and elimination of environmentally harmful substances such as halon, acids, caustic medicine and barium. These activities have also allowed NSK to improve the efficiency of its operations in North America.

Promoting Recycling at all Operating Sites

One of the top accomplishments at NSK sites in North America has been in the area of recycling. From a low level of approximately 20%, the recycling ratio has been raised significantly to around 90% at most sites. This has been achieved through the dedicated efforts of site environmental managers and partnerships with waste disposal contractors.

Recycling Ratio at the NSK Corporation Franklin Plant

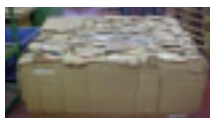


NSK's recycling efforts include many highly targeted activities, such as the recycling of grinding swarf. NSK Corporation, NSSA, NPA and NSK-AKS Precision Ball, have begun recycling grinding swarf together with steel scrap.

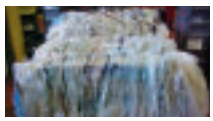
To accomplish this goal, NSK Corporation established a partnership with its scrap processor to recycle swarf material with steel scrap. This resulted in a reduction of over 1,000 tons of waste sent to landfill in fiscal 2004.

Additionally, NSK has been active in the recycling of cardboard waste. The Franklin, Liberty and NSSA plants have installed bailers to allow for easier recycling. All other facilities also have programs in place to recycle cardboard. The benefits of this initiative are steadily emerging, illustrated by the recycling of over 500 tons of cardboard in fiscal 2004 that would have been sent to landfill. In addition to cardboard recycling, NSK is encouraging customers to utilize returnable containers to reduce overall cardboard usage.

Bailing equipment



Compacted cardboard



Compacted plastic

Relentless Efforts to Protect the Environment

The swarf and cardboard recycling programs are points of pride for NSK in North America but they are only part of our recycling initiatives. NSK facilities in the region have programs in place to recycle a wide range of waste—everything from office paper, plastics and oils, to machining coolants, wood, electronic components, printer cartridges, batteries and light bulbs. No waste stream is left untouched by the programs within our facilities.

And we are not just looking at recycling: NSK in North America has programs in place to reduce water, electricity and gas usage, and is also striving to reduce VOC emissions. All these active programs are helping to lower NSK's impact on the environment.

Environmental Coordinator: David Jones

Initiatives in Asia

Indonesia

P.T. NSK Bearings Manufacturing Indonesia, Jakarta Plant

Location ..... Blok M-4, Kawasan Berikat, MM2100 Industrial Town, Cikarang Barat, Bekasi 17520
Total floor space ..... 32,548 m²
Employees ..... 1,458 (as of December 31, 2004)
Business outline ..... Manufacture of ball bearings and automotive bearings
ISO 14001 certification ..... March 2000

Overview of Activities

Playing its role as a member of society, the Jakarta Plant, operated by P.T. NSK Bearings Manufacturing Indonesia, implements its own program of carefully targeted local activities to contribute to the development of surrounding communities.

Helping to Support Indonesia's Future Potential

As part of its communication activities with local communities, the Jakarta Plant invited 50 students from the SMK Muhammadiyah High School in Sleman, central Java, on a plant tour. The tour included explanations of NSK products and technologies, an introduction to the plant and a tour of production lines. Efforts were also made to give the visitors a more in-depth understanding of the plant's environmental protection activities. Feedback from the students included comments about the tidiness and level of excellence at the site.

Additionally, to help students in Indonesia make the most of their potential, NSK provides scholarships for students at more than 20 elementary, junior and senior high schools in the industrial town near the Jakarta Plant and in western Cikarang.

Supporting Tsunami Relief Efforts

On December 26, 2004, a large tsunami devastated Aceh Province and other regions in Northern Sumatra. To support recovery and relief efforts, the Jakarta Plant and its employees organized a range of charitable activities in January 2005. Cash donations of 7 million rupiah (approximately ¥80,000) and relief supplies including clothes, medicine and food were sent to those affected by the disaster.

Contributing to Communities With Carefully Targeted Local Activities

The NSK Jakarta Plant works to build strong relationships with stakeholders by respecting the diversity of local communities, which encompass a wide variety of different peoples, languages and religions. On January 19, 2005, the plant donated a number of goats for the Idul Adha Festival, observed by the many followers of Islam in Indonesia.

Drills to Prepare for Emergency Situations

The NSK Jakarta Plant is also active in areas outside the social sphere. As part of its efforts to protect the environment, the site implements annual emergency drills based on fire and oil leakage scenarios. These exercises help to raise employee awareness about potential emergency situations, allowing them to respond more rapidly and systematically to any event. In order to minimize any potential damage and verify procedures, participants are given the opportunity to use fire extinguishers to deal with early-stage fires, while fire-response units from each section carry out actual hose drills.

Site Environmental Representative: Muflih Noor

China

Kunshan NSK Co., Ltd.

Location ..... 258 South Huang Pu Jiang Road, Kunshan, Economic & Technical Development Zone, Jiangsu, 215335, China
Total floor space ..... 72,042 m²
Employees ..... 839 (as of December 31, 2004)
Business outline ..... Manufacture of bearings for electronic and automotive applications
ISO 14001 certification ..... December 2003

Overview of Activities

Kunshan NSK began operations in May 1997 as NSK's first plant in China.

Emergency Drills Involving the Entire Workforce

Fire is seen as the biggest risk facing the plant's production activities. Kunshan NSK has been designated as an important fire-response facility by Kunshan City. Reflecting this status and in order to fulfil its responsibility to the local community, Kunshan NSK carries out emergency fire drills every year involving the entire workforce. City fire fighters also participate in the drills. These realistic exercises are led by an officer, who organizes the workforce into a number of small teams that work together closely on extinguishing fires, providing medical aid and implementing fire protection measures. These drills give employees an added awareness of both the role they will play in an emergency and the importance of preventing fires on a daily basis. They also provide the opportunity for enhancing cooperation and communication between employees and sections.

Promoting Eco-friendly Recycling

Grinding swarf generated by Kunshan NSK is recycled as roofing tiles by a local roofing materials company, while cardboard and wood used in packaging is recovered by a specialist contractor. Scrap from the bearing manufacturing process and metal waste generated by the facilities section is also recovered and recycled. Thanks to these and other initiatives, Kunshan NSK boosted its recycling ratio from 58% in fiscal 2003, to 91% in fiscal 2004.

Forging Links With Local Companies Through Sport

Kunshan NSK's basketball team plays friendly matches with foreign-affiliated companies located in the surrounding economic and technical development zone. These and other sporting activities help to raise NSK's visibility in the area. The plant's swimming and other teams also actively participate and perform well in a variety of competitions.

In addition, all Kunshan NSK's employees take part in an annual sports festa aimed at enhancing communication among the workforce and promoting employee health through sport. The plant is using these activities to support its employee welfare program and boost worker productivity.

Site Environmental Representative: Yin Yuefang

Reference Data

●Air quality

NSK and Newly Spun-off Subsidiary Plants

Name of site	Item	Facility	Regulation requirements	NSK control value	Actual value
Fujisawa Plant	NOx (ppm)	Boiler	150	135	83
		Metal furnace	200	180	94
	Soot and dust (g/m^3N)	Boiler	0.3	0.27	0.0017
		Metal furnace	0.25	0.225	0.0057
	SOx (m^3N/hr)	Boiler	3.11	2.80	0.02 Less than
		Metal furnace	1.02	0.92	0.01 Less than
Ohtsu Plant	NOx (ppm)	Boiler	150	120	90
		Metal furnace		N/A	
	Soot and dust (g/m^3N)	Boiler	0.3	0.05	0.002
		Metal furnace		N/A	
	SOx (K value)	Boiler	8.76	5	0.01 Less than
		Metal furnace		N/A	
Ishibe Plant	NOx (ppm)	Boiler	150	120	84
		Metal furnace		N/A	
	Soot and dust (g/m^3N)	Boiler	0.1	0.05	0.01 Less than
		Metal furnace		N/A	
	SOx (K value)	Boiler	8.76	5	0.1 Less than
		Metal furnace		N/A	
Saitama Plant/NSK Precision Co., Ltd. Saitama Precision Machinery & Parts Plant	NOx (ppm)	Boiler	150	135	110
		Metal furnace	180	150	91
	Soot and dust (g/m^3N)	Boiler	0.3	0.2	0.017
		Metal furnace	0.25	0.15	0.013
	SOx (m^3N/hr)	Boiler	1.42	0.6	0.002 Less than
		Metal furnace	1.53	0.75	0.005 Less than
Kirihara Plant	NOx (ppm)	Boiler		N/A	
		Metal furnace			
	Soot and dust (g/m^3N)	Boiler			
		Metal furnace			
	SOx (K value)	Boiler			
		Metal furnace			
NSK Fukushima Co., Ltd.	NOx (ppm)	Boiler	180	135	91
		Metal furnace		N/A	
	Soot and dust (g/m^3N)	Boiler	0.3	0.05	0.005 Less than
		Metal furnace		N/A	
	SOx (K value)	Boiler	17.5	1.5	0.38
		Metal furnace		N/A	
NSK Steering Systems Co., Ltd. Soja Plant	NOx (ppm)	Boiler	180	150	100
		Metal furnace		N/A	
	Soot and dust (g/m^3N)	Boiler	0.3	0.2	0.006 Less than
		Metal furnace		N/A	
	SOx (K value)	Boiler	8	7	0.2 Less than
		Metal furnace		N/A	
NSK Steering Systems Co., Ltd. Akagi Plant	NOx (ppm)	Boiler	180	150	81
		Metal furnace		N/A	
	Soot and dust (g/m^3N)	Boiler	0.3	0.2	0.006 Less than
		Metal furnace		N/A	
	SOx (K value)	Boiler	8	7	0.19 Less than
		Metal furnace		N/A	
NSK Precision Co., Ltd. Maebashi Precision Machinery & Parts Plant	NOx (ppm)	Boiler	180	150	110
		Metal furnace		N/A	
	Soot and dust (g/m^3N)	Boiler	0.3	0.2	0.01
		Metal furnace		N/A	
	SOx (m^3N/hr)	Boiler	0.9	0.7	0.02 Less than
		Metal furnace		N/A	

Subsidiary Companies

Name of site	Item	Facility	Regulation requirements	NSK control value	Actual value
NSK Micro Precision Co., Ltd. Fujisawa Plant	NOx (ppm)	Boiler		N/A	
		Metal furnace			
	Soot and dust (g/m^3N)	Boiler			
		Metal furnace			
	SOx (m^3N/hr)	Boiler			
		Metal furnace			
NSK Micro Precision Co., Ltd. (Nagano) Matsukawa Plant	NOx (ppm)	Boiler		N/A	
		Metal furnace			
	Soot and dust (g/m^3N)	Boiler			
		Metal furnace			
	SOx (m^3N/hr)	Boiler			
		Metal furnace			
NSK Needle Bearing Ltd. Takasaki Plant	NOx (ppm)	Boiler	150	140	135
		Diesel engine	950	900	816
	Soot and dust (g/m^3N)	Boiler	0.1	0.09	0.002 Less than
		Diesel engine	0.1	0.09	0.042
	SOx (K value)	Boiler	17.5	5	0.1 Less than
		Diesel engine	17.5	5	0.1 Less than
NSK Needle Bearing Ltd. Haruna Plant	NOx (ppm)	Boiler	150	140	115
		Diesel engine	950	900	892
	Soot and dust (g/m^3N)	Boiler	0.1	0.09	0.002 Less than
		Diesel engine	0.1	0.09	0.004
	SOx (K value)	Boiler	17.5	7	0.1 Less than
		Diesel engine	17.5	7	1.22
NSK Kyushu Co., Ltd.	NOx (ppm)	Boiler	180	160	84.2
		Diesel engine	950	—	894
	Soot and dust (g/m^3N)	Boiler	0.3	—	0.02
		Diesel engine	0.1	—	0.005
	SOx (K value)	Boiler	17.5	13	1.5
		Diesel engine	17.5	—	0.15
NSK-Warner K.K.	NOx (ppm)	Boiler	180	135	67
		Metal furnace		N/A	
	Soot and dust (g/m^3N)	Boiler	0.3	0.05	0.01 Less than
		Metal furnace		N/A	
	SOx (m^3N/hr)	Boiler	1.26	0.11	0.003 Less than
		Metal furnace		N/A	
Inoue Jikuuke Kogyo Co., Ltd.	NOx (ppm)	Boiler		N/A	
		Metal furnace			
	Soot and dust (g/m^3N)	Boiler			
		Metal furnace			
	SOx (m^3N/hr)	Boiler			
		Metal furnace			

Actual values for NOx, soot and dust and SOx are the maximum values recorded from among applicable facilities.

Glossary

- NOx: Nitrogen oxides, mainly nitrogen monoxide and nitrogen dioxide, produced when fuel is burned in boilers and other equipment.
- Soot and Dust: Particles generated during the combustion of fuel.
- SOx: Sulfur oxides, particularly sulfur dioxide and sulfur trioxide, produced when fuels containing sulfur are burned in boilers and other equipment.

●Release and transfer volume of PRTR-designated substances

NSK and Newly Spun-off Subsidiary Plants

(kg/yr)

Name of site	Substance no.	Substance name	Handled volume	Released to the atmosphere	Released into water	Transferred to sewer	Transferred as waste	Consumed	Recycled
Fujisawa Plant	40	Ethyl benzene	1,120	249	0	0	0	871	0
	63	Xylene	45,858	3,684	0	0	0	40,904	1,270
	227	Toluene	6,655	269	0	0	0	6,386	0
Ohtsu Plant	63	Xylene	12,968	2,594	0	0	0	9,282	1,092
Ishibe Plant	63	Xylene	7,550	2,922	0	0	0	4,145	483
	227	Toluene	3,856	21	0	0	0	3,835	0
Saitama Plant/NSK Precision Co., Ltd. Saitama Precision Machinery & Parts Plant	63	Xylene	12,306	3,845	0	0	1	8,090	370
	227	Toluene	2,348	5	0	0	0	2,343	0
NSK Fukushima Co., Ltd.	63	Xylene	4,137	2,634	0	0	0	375	1,128
NSK Steering Systems Co., Ltd. Soja Plant	40	Ethyl benzene	3,003	313	0	0	297	2,393	0
	63	Xylene	21,617	1,939	0	0	2,257	17,421	0
	224	1.3.5-trimethyl benzene	1,388	181	0	0	90	1,117	0
	227	Toluene	23,780	7,057	0	0	1,126	15,597	0
NSK Steering Systems Co., Ltd. Akagi Plant	63	Xylene	5,214	22	0	0	207	4,985	0
	227	Toluene	3,295	10	0	0	0	3,285	0
NSK Precision Co., Ltd. Maebashi Precision Machinery & Parts Plant	63	Xylene	9,275	131	0	0	0	8,874	270
	224	1.3.5-trimethyl benzene	1,151	1,151	0	0	0	0	0
	227	Toluene	3,383	1,209	0	0	0	2,174	0

Kirihara Plant: N/A

●Water quality

NSK and Newly Spun-off Subsidiary Plants

Name of site	Item	Regulation requirements	NSK control value	Actual value
Fujisawa Plant	pH	5.0～9.0	5.3～8.8	7.4
	BOD (mg/l)	600	540	39.7
	Discharge point	Sewer (No direct discharge to rivers or streams)		
Ohtsu Plant	pH	6.0～8.5	6.3～8.0	6.9
	BOD (mg/l)	70	25	8.4
	COD (mg/l)	70	25	5.0
	Suspended solids (mg/l)	90	30	0.7
	Oils (mg/l)	5	4	0.5
	Nitrogen (mg/l)	40	20	5.3
	Phosphorus (mg/l)	2	1.6	0.1
	Discharge point	River (Morikoshi River)		
Ishibe Plant	pH	6.0～8.5	6.3～8.3	6.9
	BOD (mg/l)	70	50	5.0
	COD (mg/l)	70	50	5.3
	Suspended solids (mg/l)	90	70	1.4
	Oils (mg/l)	5	4	1.1
	Nitrogen (mg/l)	40	30	1.2
	Phosphorus (mg/l)	2	1.6	0.1
	Discharge point	River (Yasu River)		
Saitama Plant/NSK Precision Co., Ltd. Saitama Precision Machinery & Parts Plant	pH	5.8～8.6	6.0～8.4	7.4
	BOD (mg/l)	25	25	4.6
	COD (mg/l)	160	70	11.0
	Suspended solids (mg/l)	50	40	4.9
	Oils (mg/l)	5	4	0.5
	Nitrogen (mg/l)	120	100	5.9
	Phosphorus (mg/l)	16	10	0.8
	Discharge point	River (Naka River)		
Kirihara Plant	pH	5.8～8.6	6.2～8.2	7.9
	BOD (mg/l)	60	55	4.7
	COD (mg/l)	60	55	5.0
	Suspended solids (mg/l)	90	85	2.3
	Oils (mg/l)	5	4	1.0
	Discharge point	River (Hikichi River)		
NSK Fukushima Co., Ltd.	pH	5.8～8.6	6.0～8.4	7.3
	BOD (mg/l)	20	18	5.7
	Suspended solids (mg/l)	50	25	3.9
	Oils (mg/l)	5	4.0	0.5
	Nitrogen (mg/l)	60	30	1.2
	Phosphorus (mg/l)	8	4	0.1
	Discharge point	River (Yashiro River)		
NSK Steering Systems Co., Ltd. Soja Plant	pH	5.8～8.6	5.9～8.5	7.9
	BOD (mg/l)	25	24	3.0
	COD (mg/l)	25	24	3.7
	Suspended solids (mg/l)	50	45	3.2
	Oils (mg/l)	5	4	1.0
	Nitrogen (mg/l)	120	100	4.4
	Phosphorus (mg/l)	16	14	0.1
	Discharge point	River (Taki River)		
NSK Steering Systems Co., Ltd. Akagi Plant	pH	5.8～8.6	5.9～8.5	7.2
	BOD (mg/l)	25	24	4.5
	COD (mg/l)	25	24	5.0
	Suspended solids (mg/l)	50	45	2.0
	Oils (mg/l)	5	4	1.0
	Nitrogen (mg/l)	120	100	6.2
	Phosphorus (mg/l)	16	14	0.1
	Discharge point	River (Kamisawa River)		
NSK Precision Co., Ltd. Maebashi Precision Machinery & Parts Plant	pH	5.8～8.6	5.9～8.5	7.7
	BOD (mg/l)	25	24	0.9
	COD (mg/l)	25	24	1.2
	Suspended solids (mg/l)	50	45	2.4
	Oils (mg/l)	5	4	1.0
	Nitrogen (mg/l)	120	100	0.4
	Phosphorus (mg/l)	16	14	0.2
	Discharge point	River (Someya River)		

Subsidiary Companies

Name of site	Item	Regulation requirements	NSK control value	Actual value
NSK Micro Precision Co., Ltd. Fujisawa Plant	pH	5.8～8.6	5.8～8.5	7.5
	BOD (mg/l)	60	58	14.6
	COD (mg/l)	60	58	18.2
	Suspended solids (mg/l)	90	88	9.3
	Oils (mg/l)	5	4.5	1.1
	Discharge point	River (Kashio River)		
NSK Micro Precision Co., Ltd. (Nagano) Matsukawa Plant	pH	5.8～8.6	5.9～8.5	6.8
	BOD (mg/l)	160	152	8.1
	COD (mg/l)	160	152	7.7
	Suspended solids (mg/l)	200	190	4.2
	Oils (mg/l)	5	4.9	1.4
	Discharge point	River (Katagirimatsu River)		
NSK Needle Bearing Ltd. Takasaki Plant	pH	5～9	5.9～8.5	7.6
	BOD (mg/l)	600	500	12.3
	Cyanide (mg/l)	1	1	0.1
	Discharge point	Sewer (No discharge into rivers except rain runoff)		
NSK Needle Bearing Ltd. Haruna Plant	pH	5.8～8.6	5.9～8.5	7.6
	BOD (mg/l)	25	24	8.2
	COD (mg/l)	25	24	4.0
	Suspended solids (mg/l)	50	45	5.3
	Oils (mg/l)	5	4	1.0
	Nitrogen (mg/l)	120	100	43.5
	Phosphorus (mg/l)	16	14	0.3
	Discharge point	River (Mukai River)		
NSK Kyushu Co., Ltd.	pH	5.8～8.6	5.9～8.5	7.6
	BOD (mg/l)	45	20	5.6
	COD (mg/l)	45	20	15.0
	Suspended solids (mg/l)	100	60	1.0
	Oils (mg/l)	5	4	0.5
	Nitrogen (mg/l)	120	100	29.0
	Phosphorus (mg/l)	16	14	3.3
	Discharge point	River (Shinta River)		
NSK-Warner K.K.	pH	5.8～8.6	5.8～8.6	7.3
	BOD (mg/l)	25	20	3.5
	COD (mg/l)	160	20	10.4
	Suspended solids (mg/l)	50	30	2.0
	Oils (mg/l)	5	4	0.5
	Nitrogen (mg/l)	120	30	5.3
	Phosphorus (mg/l)	16	4	0.1
	Discharge point	River (Saka River)		
Inoue Jikuuke Kogyo Co., Ltd.	pH	5.8～8.6	6.0～8.3	7.1
	BOD (mg/l)	150	100	24.8
	COD (mg/l)	150	100	23.8
	Suspended solids (mg/l)	200	120	5.0
	Oils (mg/l)	4	3	1.5
	Nitrogen (mg/l)	60	—	43.7
	Phosphorus (mg/l)	8	—	0.6
	Discharge point	River (Unada River)		

Glossary

- pH: Hydrogen-ion concentration. A scale indicating the level of acidity or alkalinity of a solution, with pH 7 representing a neutral value.
- COD: Chemical oxygen demand. Used as an indicator to determine the density of organic water pollutants and indicates the oxygen in the oxidant consumed in order to oxidize the pollutants contained in the water.
- BOD: Biochemical oxygen demand. Used as an indicator to determine the density of organic water pollutants and indicates the oxygen consumed in order to oxidize the pollutants contained in the water using microbes.

Subsidiary Companies

(kg/yr)

Name of site	Substance no.	Substance name	Handled volume	Released to the atmosphere	Released into water	Transferred to sewer	Transferred as waste	Consumed	Recycled
NSK Needle Bearing Ltd. Takasaki Plant	16	2-amino ethanol	1,570	0	0	627	0	0	943
	63	Xylene	9,435	4,680	0	0	0	2,749	2,006
	108	Inorganic cyanide compounds	1,339	0	0	0	1,339	0	0
	227	Toluene	4,032	0	0	0	0	4,032	0
NSK Needle Bearing Ltd. Haruna Plant	16	2-amino ethanol	9,332	0	3,735	0	5,597	0	0
	63	Xylene	2,794	1,536	0	0	0	601	657
NSK Kyushu Co., Ltd.	227	Toluene	1,233	1,233	0	0	0	0	0
NSK-Warner K.K.	16	2-amino ethanol	3,709	0	297	0	742	2,670	0
	63	Xylene	46,550	1,903	0	0	480	44,167	0
	67	Cresol	2,233	2,038	0	0	141	54	0
	227	Toluene	33,985	31,469	0	0	2,132	384	0
	266	Phenol	93,437	1,828	0	0	5,905	85,704	0
	309	Poly (oxyethylene) nonylphenyl ether	1,350	0	73	0	615	662	0
Inoue Jikuuke Kogyo Co., Ltd.	63	Xylene	1,568	907	0	0	0	612	49

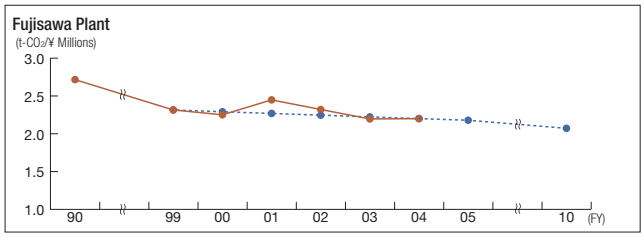
NSK Micro Precision Co., Ltd. Fujisawa Plant: N/A NSK Micro Precision Co., Ltd. (Nagano) Matsukawa Plant: N/A

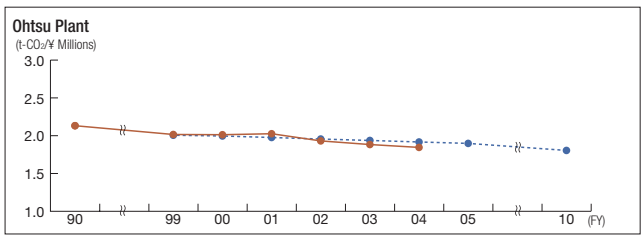
Glossary

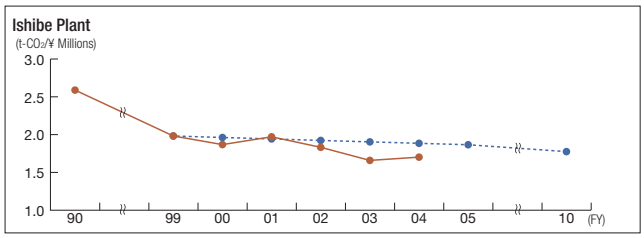
- PRTR Law: Law concerning the reporting of releases to the environment of specific chemical substances, designed to encourage improvement in chemical management.
- Consumed: Amount of substances subject to the PRTR Law converted to other substances following chemical reactions (incineration, etc.) incorporated in or included with products that are removed from the site.

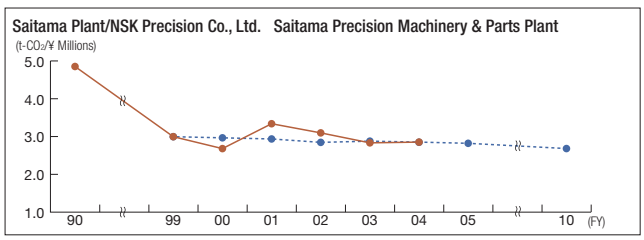
●CO_2 emissions per production unit

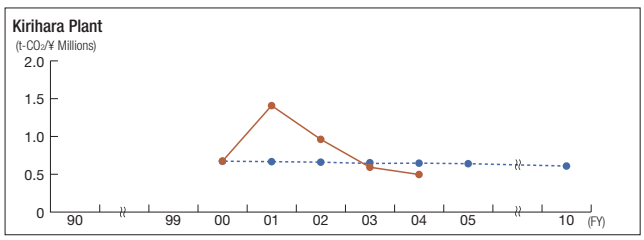
NSK and Newly Spun-off Subsidiary Plants

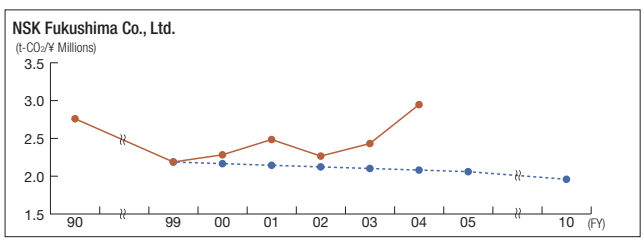


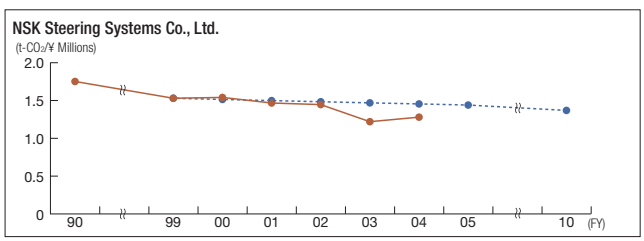


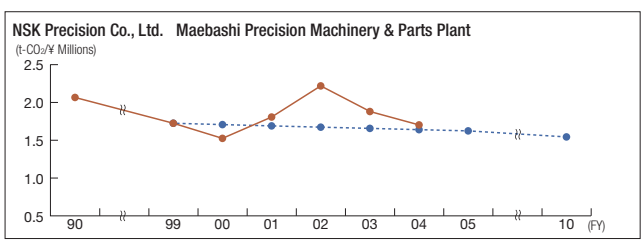




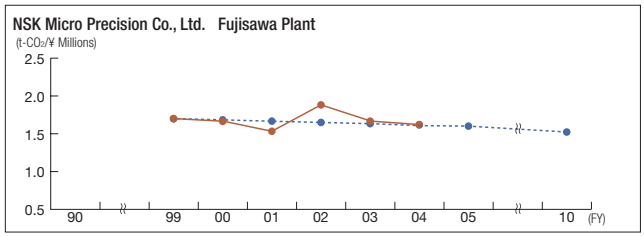


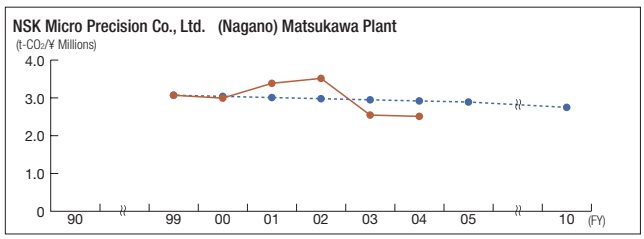


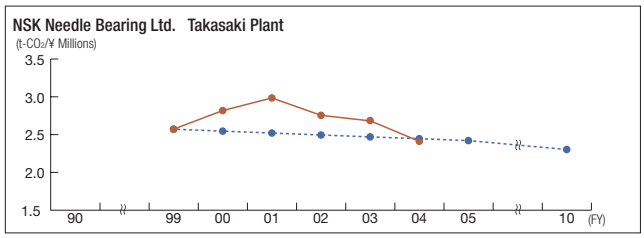


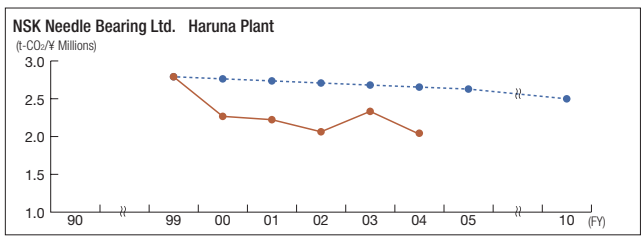


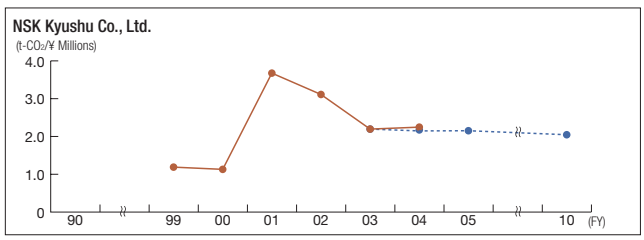
Subsidiary Companies

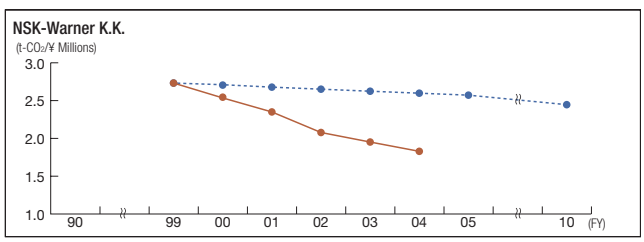


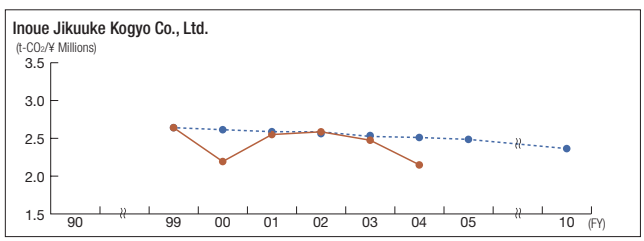












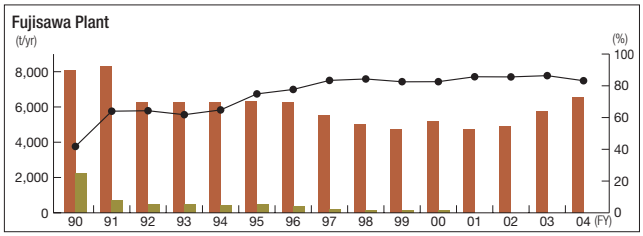
CO_2 emissions related to the use of electricity are calculated assuming that the electricity was generated from thermal power.

Reference Data

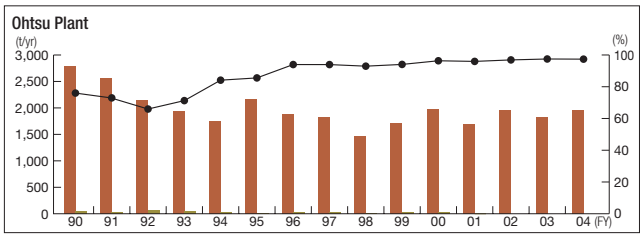
●Volume of Landfill Waste and Recycling Ratio

NSK and Newly Spun-off Subsidiary Plants

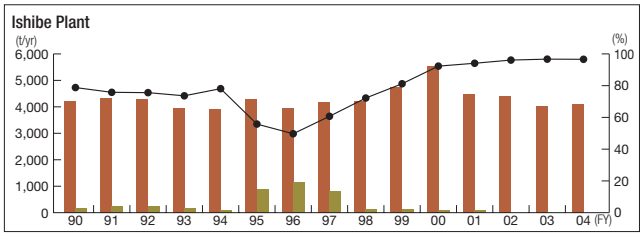
Fujisawa Plant



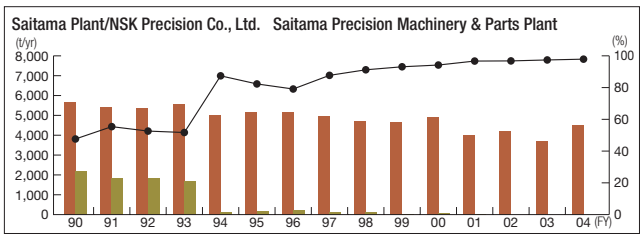
Ohtsu Plant



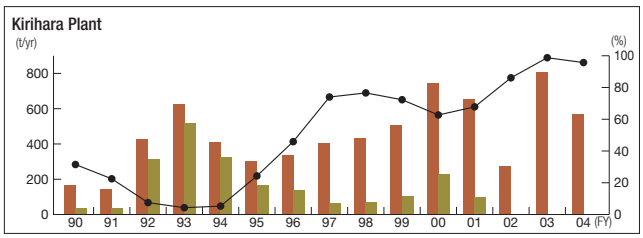
Ishibe Plant



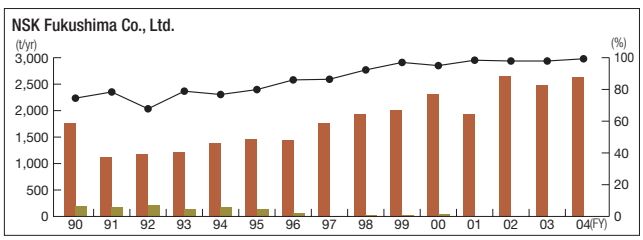
Saitama Plant/NSK Precision Co., Ltd. Saitama Precision Machinery & Parts Plant



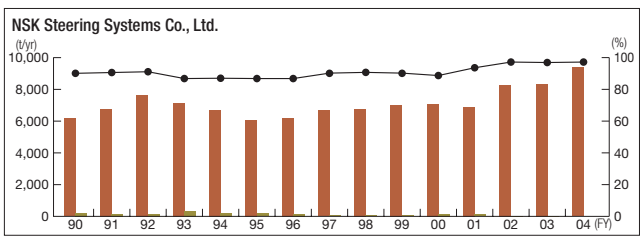
Kirihara Plant



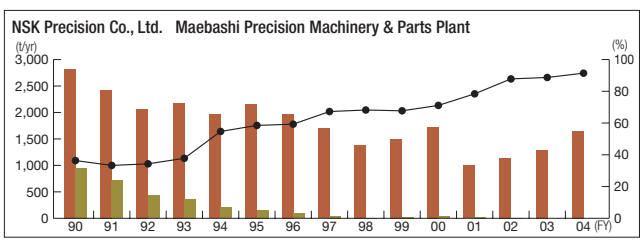
NSK Fukushima Co., Ltd.



NSK Steering Systems Co., Ltd.

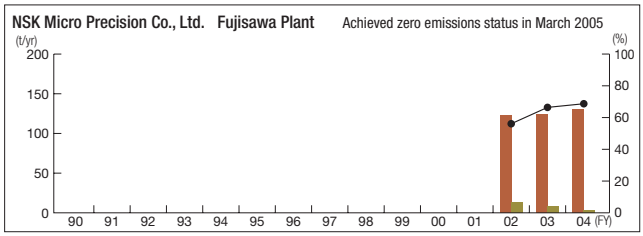


NSK Precision Co., Ltd. Maebashi Precision Machinery & Parts Plant

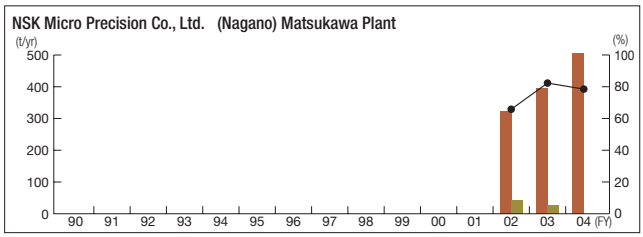


Subsidiary Companies

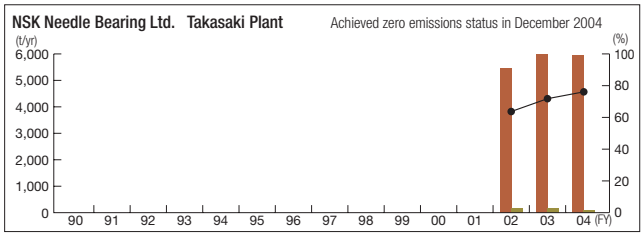
NSK Micro Precision Co., Ltd. Fujisawa Plant Achieved zero emissions status in March 2005



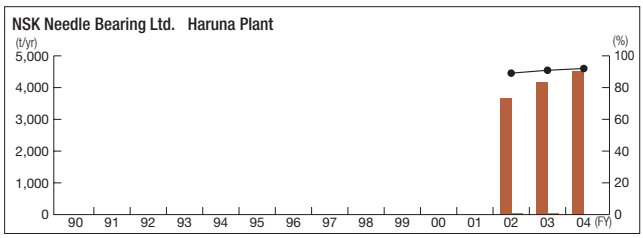
NSK Micro Precision Co., Ltd. (Nagano) Matsukawa Plant



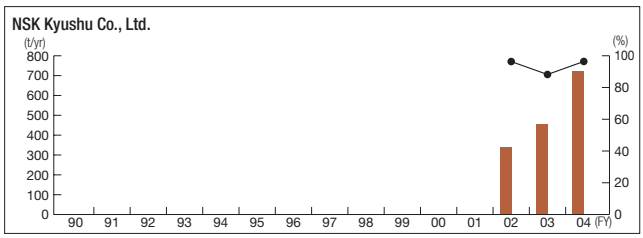
NSK Needle Bearing Ltd. Takasaki Plant Achieved zero emissions status in December 2004



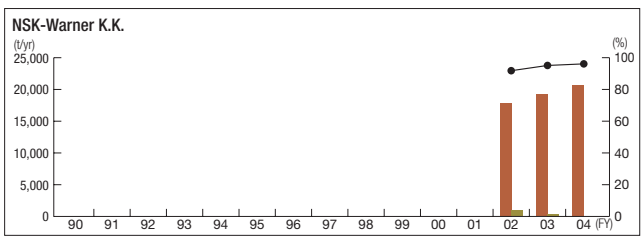
NSK Needle Bearing Ltd. Haruna Plant



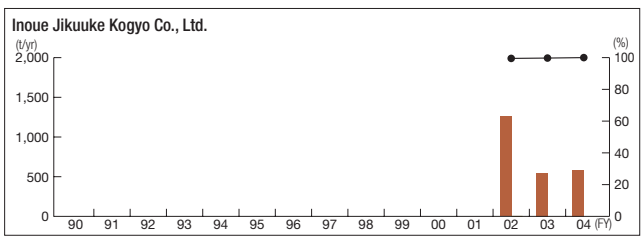
NSK Kyushu Co., Ltd.



NSK-Warner K.K.



Inoue Jikuuke Kogyo Co., Ltd.



■ Related Information

Information regarding environmental activities can also be viewed at the NSK Website:

- URL: http://www.nsk.com

Other information related to NSK activities can be found in the following booklets. To obtain a copy, please file a request at the addresses listed below.

- Company Overview (Available in Japanese, English and Chinese)
- Annual Report 2005 (Available in Japanese and English)
- Social and Environmental Report 2004 (Available in Japanese and English)
- Environmental Report 2001, 2002 and 2003 (Available in Japanese and English)
- *Lessons from Professor Bearing: A Primer on Bearings* (Available in Japanese only)
- Picture book *The Story of Bearings* (Available in Japanese only)

■ Scope of This Report

The NSK Social and Environmental Report 2005 covers NSK Ltd. and newly spun-off subsidiaries, as well as manufacturing and logistics subsidiaries in which NSK owns a stake of at least 50%. Also included are subsidiaries that manufacture NSK-brand products, subsidiaries that perform pre-processing such as machining of bearing parts and those that manufacture machinery, despite their relatively small business scale and environmental impact. The inclusion of logistics subsidiaries is in line with NSK's belief that activities that encompass the entire NSK Group are vital to efforts to reduce environmental impact.

1. Companies practicing environmental management

- NSK Ltd.

Newly spun-off subsidiaries

- NSK Fukushima Co., Ltd.
- NSK Steering Systems Co., Ltd.
- NSK Precision Co., Ltd.

Subsidiaries manufacturing NSK-brand products

- NSK Micro Precision Co., Ltd.
- NSK Micro Precision Co., Ltd. (Nagano)
- NSK Needle Bearing Ltd.
- NSK Kyushu Co., Ltd.
- NSK-Warner K.K.
- Inoue Jikuuke Kogyo Co., Ltd.

Subsidiaries performing pre-processing

- Chitose Sangyo Co., Ltd.
- Asahi Seiki Co., Ltd.
- Shinwa Seiko Co., Ltd.

Machinery manufacturing subsidiary

- NSK Machinery Co., Ltd.

Logistics subsidiary

- NSK Logistics Co., Ltd.

Overseas manufacturing subsidiaries

- Subsidiaries in which NSK has a stake of 50% or more follow a common environmental policy

2. Scope of performance data regarding NSK's Voluntary Action Plan

In order to present a more comprehensive picture of the Group, this year's report includes data from affiliates involved in manufacturing, in addition to data already included from NSK and its newly spun-off subsidiaries. However, in order to accurately show the performance of its Voluntary Action Plan, launched in 1993 and covering NSK and its newly spun-off subsidiaries, NSK has presented affiliate data separately in some cases and indicated as such to the reader.

NSK and Newly Spun-off Subsidiary Plants

NSK Ltd.

- Fujisawa Plant
- Ohtsu Plant
- Ishibe Plant
- Saitama Plant
- Kirihara Plant*1

NSK Fukushima Co., Ltd.
NSK Steering Systems Co., Ltd.
NSK Precision Co., Ltd.*1

- Maebashi Precision Machinery & Parts Plant
- Saitama Precision Machinery & Parts Plant*2

Subsidiary Companies

NSK Micro Precision Co., Ltd.
NSK Micro Precision Co., Ltd. (Nagano)
NSK Needle Bearing Ltd.

- Takasaki Plant
- Haruna Plant

NSK Kyushu Co., Ltd.
NSK-Warner K.K.
Inoue Jikuuke Kogyo Co., Ltd.
Chitose Sangyo Co., Ltd.
Asahi Seiki Co., Ltd.
Shinwa Seiko Co., Ltd.

- Kutsuki Plant
- Shin-Asashi Plant

NSK Machinery Co., Ltd.

*1 The NSK Precision Co., Ltd. Kirihara Precision Machinery & Parts Plant became the Kirihara Plant following organizational reform in May 2005.

*2 Data for the Saitama Precision Machinery & Parts Plant is included with data for the Saitama Plant, since both are located on the grounds of the same business site.

Note From the Editor

This year marks the second year we have published a Social and Environmental Report since changing the title of the Environmental Report in fiscal 2003. Centered on the theme Supporting People, Supported by People, we have tried to use this year s report to present a more dynamic image of NSK using numerous mini-articles to explain how we work hand in hand with a variety of stakeholder groups. Hopefully, this has resulted in a more enjoyable readership experience. Additionally, against a backdrop of rising interest in corporate social responsibility (CSR), we have devoted space to explaining in an accessible manner NSK s initiatives in this area, including steps to reinforce corporate governance and compliance, as well as its efforts to achieve sustainable growth. We also worked to provide more comprehensive information on environmental initiatives, focusing on NSK s efforts across the entire product lifecycle.

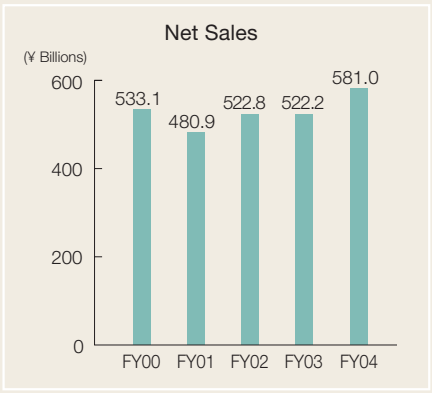
At NSK, encouraging as many people as possible to read and then provide their opinions and advice on this Social and Environmental Report, is seen as an important means of improving the quality of the publication. To that end, we warmly welcome any feedback you may be able to provide us.

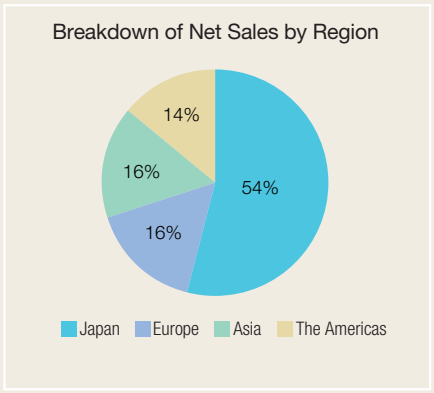
Contact:

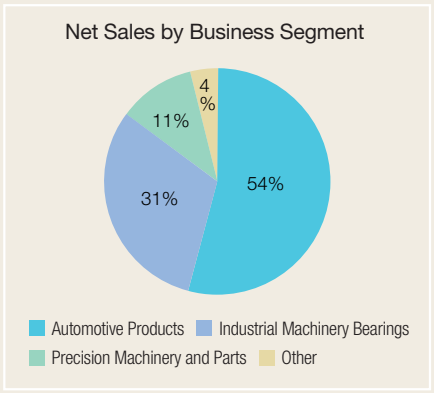
NSK Ltd. Environment Control Department Compliance Division-Headquarters
Nissei Bldg., 1-6-3 Ohsaki, Shinagawa-ku, Tokyo 141-8560, Japan
TEL: +81-3-3779-7170
FAX: +81-3-3779-7445
E-mail: eco@nsk.com

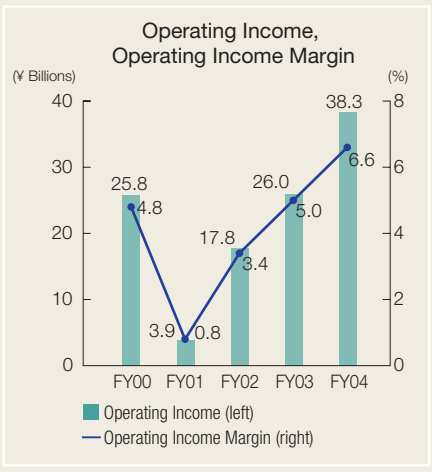
Economic Report (Summary of Operating Performance)

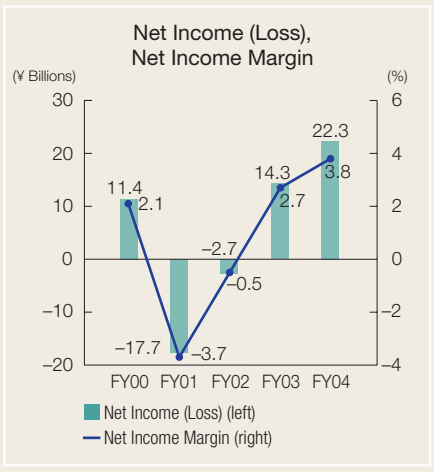
Fiscal 2004, ended March 31, 2005, was a year of record sales and profits for NSK. While generally favorable business conditions worldwide were a definite boost, the most powerful driver behind this positive performance was the steady emergence of a newfound confidence at NSK. This came as benefits seen in the previous year from structural reforms, organizational improvements and other self-reliance efforts continued to emerge in fiscal 2004.

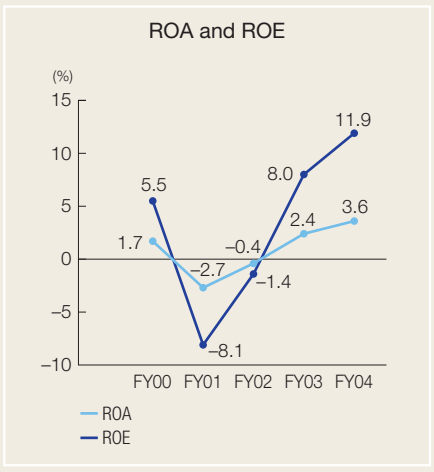


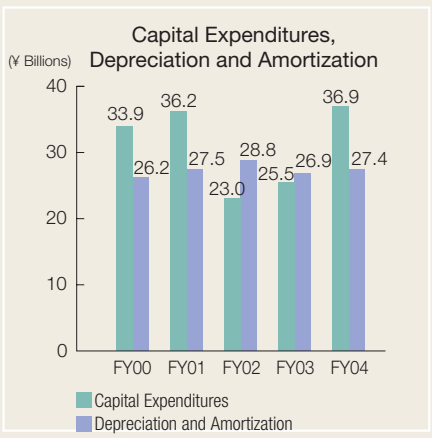


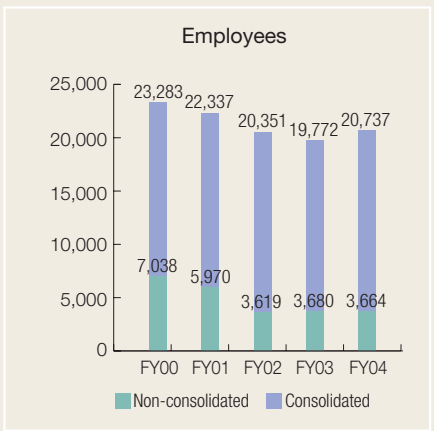


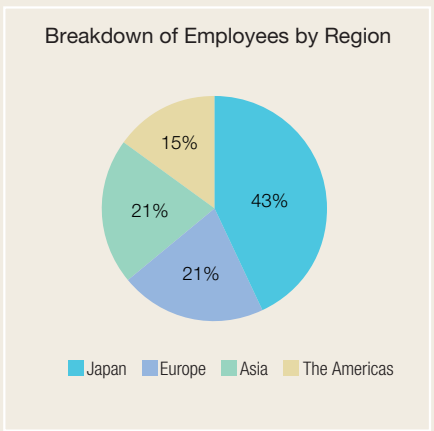












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