NGK INSULATORS, LTD.

2008

Environmental & Social Responsibility Report 2008

Contents

Corporate Outline

Company name:	NGK INSULATORS, LTD.
Address:	2-56, Suda-cho, Mizuho, Nagoya 467-8530, Japan
Telephone:	+ (81) 52-872-7171
Establishment:	May 5, 1919
Paid-in Capital:	69.8 billion yen (As of March 31, 2008)
Employees:	2,919 (As of March 31, 2008)
Business:	Manufacture and sale of insulators, electric power equipment, industrial ceramic products, electronic components and special metals products; and plant engineering

Editorial Policy

In drafting this "Environmental and Social Responsibility Report," reference was made to the Ministry of the Environment's Environmental Reporting Guidelines (2007) and the Global Reporting Initiative's 2002 Sustainability Reporting Guidelines.

The report covers the period from April 1, 2007 to March 31, 2008. Reporting on environmental initiatives and data for Group companies located overseas covers the period from January 1, 2007 to December 31, 2007. The range of companies involved differs with each initiative cited, but is clearly stated with the data.

To ensure the reliability of the information contained in this report, independent audits have been conducted by Tohmatsu Environmental Research Institute Ltd.

- A Japanese version of this report is also available. Additional information is provided on NGK's website at www.ngk.co.jp. Next year's version of this report is scheduled to be published in July 2009.
- This report can be viewed online at http://www.ngk.co.jp/english/environment/report/index.html.

To Our Stakeholders

One of the vexing problems in our world today is the question of how to extend the affluence enjoyed by developed nations to people living in developing nations and to future generations in a way that is both sustainable and equitable. In order to resolve climate change, resource depletion, management of chemicals and other global environmental issues and build sustainable societies, companies must provide environmentally conscious products and services that are energy- and resource-efficient and proactiveies comply with the stronger environmental regulations desired by society.

Our corporate philosophy is "NGK products and technologies must create new value and contribute to the quality of life." At the same time, we are continuing to work to reduce the environmental impact of our business activities.

NGK provides society with various environmentally beneficial products, including diesel particulate filters (DPFs) that purify exhaust gases given off by diesel engines, ceramics for purifying automobile exhaust (HONEYCERAM®), and NAS® battery systems, which help stabilize the use of natural sources of energy, such as wind power. Each of these products is made possible through our proprietary ceramics technology. On the other hand, to confront the growing environmental burden that accompanies increased sales of our products, we will strive to curb overall emissions volume through a tireless push to develop technologies that will sharply reduce emissions per basic unit-of-sales production value.

A more aggressive approach to the problem of global warming is currently needed, so demand for NGK products and technologies is growing on a global scale. We plan to further ramp up business activities in order to meet these expectations.

The social responsibilities of a company are varied. In addition to strict compliance, we believe that contributing to society by offering even higher-quality products to our customers, as well as helping customers, shareholders and investors, suppliers, and members of the community to gain a better understanding of business activities through ample communications, while at the same time garnering opinions from a wide range of these stakeholders, are also important responsibilities to society.

We believe that honing the proprietary ceramics technology on which NGK's businesses are built is an important task, as is passing on our operations to the next generation by securing and nurturing talented human resources. Ensuring that we have safe, comfortable working environments will be vital to achieving this. These are tasks that we will continue working hard to consistently realize.

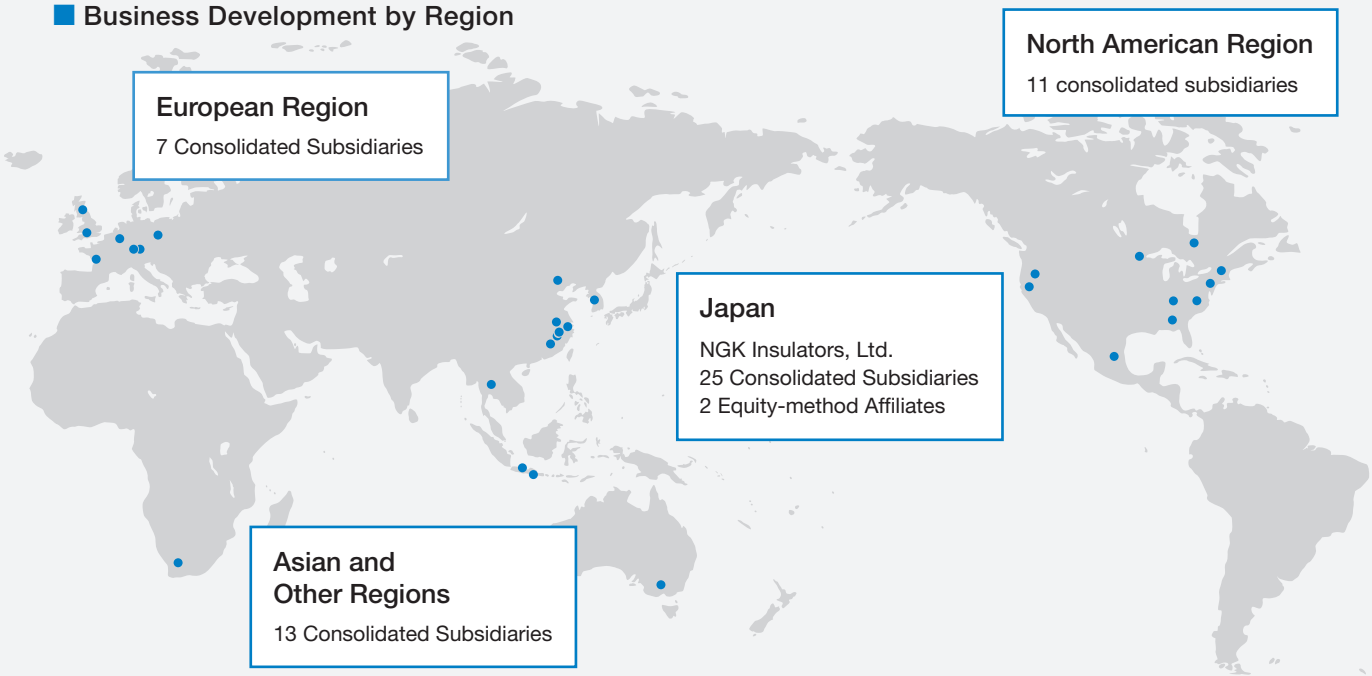
This report introduces some of NGK's environmental and social initiatives. We welcome your honest opinions about our activities so that they may make a greater contribution to the sustainable development of society.

Shun Matsushita
President and Chief
Executive Officer

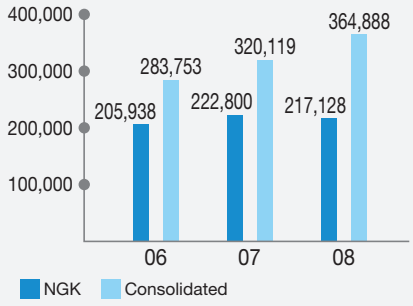
Business Overview

Business is growing on a global scale and changes are taking place with increasing speed. With proprietary ceramics technologies as its core technologies, the NGK Group is globally and dynamically developing its own business operations.

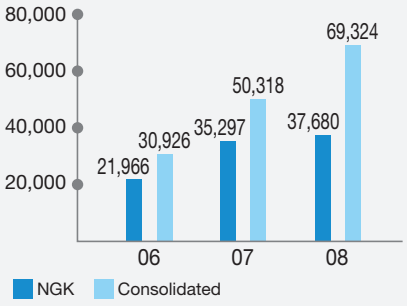
Business Development by Region



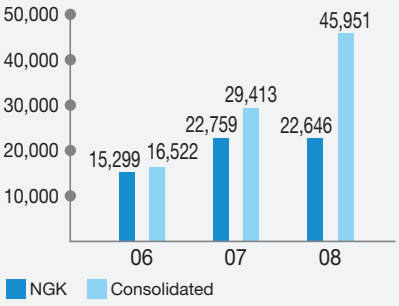
Net Sales (Millions of Yen)



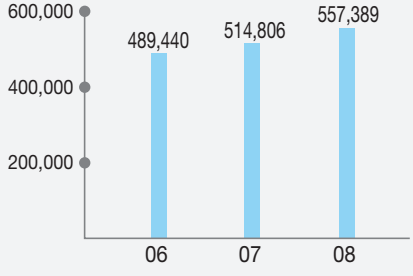
Ordinary Income (Millions of Yen)



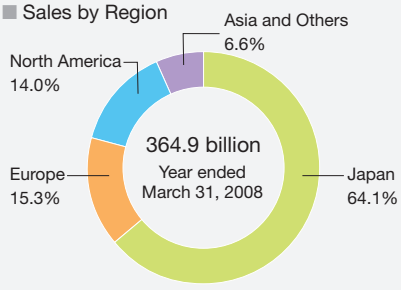
Net Income (Millions of Yen)



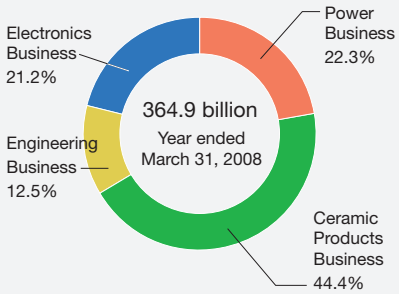
Total Assets (Millions of Yen)



Sales by Region

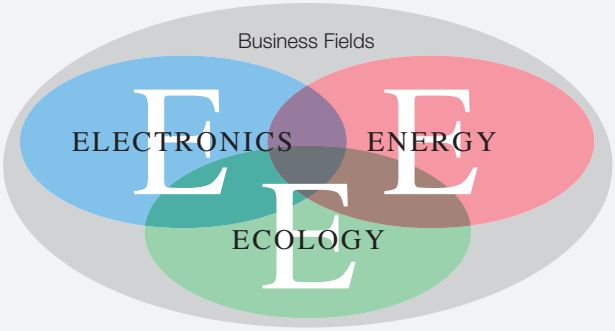


Sales by Business Segment



Business Fields and Segments

NGK leverages its core ceramics technology in the fields of Ecology, Electronics, and Energy (the “Triple-E” Fields) to develop its Power, Ceramic Products, Engineering and Electronics businesses. Our aim is to protect the environment and benefit society.



Business Groups and Main Products

Power Business

We provide the electric power sector with highly reliable products, such as insulators and NAS® batteries, that contribute to the stable supply of electricity.

- Insulators for power lines and transformers
- Devices for power transmission
- NAS® batteries for power storage

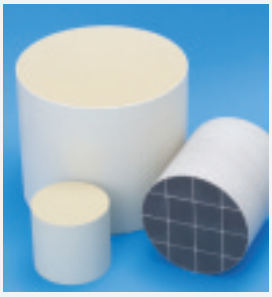

NAS® batteries for power storage


Insulators for power lines

Ceramic Products Business

Backed by proprietary ceramics technology, we supply advanced products that support a range of industries.

- Ceramic products to purify automotive exhaust
- Industrial-use ceramic products
- Combustion apparatuses and refractories
- Plant engineering


Ceramic products to purify automotive exhaust


Home-use “C1” water purifier

Electronics Business

Leveraging fine ceramics technology, we provide cutting-edge products for the rapidly changing and growing field of electronics.

- Beryllium copper rolling and processing products
- Ceramic products for semiconductor manufacturing equipment
- Metal molds
- Ceramic products for the electronics industry


Beryllium copper products


Ceramic component used in semiconductor manufacturing equipment


Ceramic components for inkjet printers

Enhancing Environmental Management on a Global Scale

Environmental management at NGK is taking another step forward. Specifically, we are strengthening environmental management systems at the Group-level in order to more aggressively incorporate environmental considerations into corporate management. In this section, Executive Vice President Kato, the chairman of the NGK Environmental Protection Committee, discusses the current trajectory of environmental management at NGK.

Executive Vice President
in Charge of Environmental
Management
Chairman, NGK Environmental
Protection Committee

Taro Kato

Environmental problems have become a growing concern in recent years all over the world, and companies have been challenged to develop sustainable corporate practices that give due consideration to the environment while maintaining harmony with local communities. In order to provide products and technologies that use less energy and fewer resources and exert a lower impact on the environment, the NGK Group must strengthen environmental management systems at domestic and overseas affiliates and ramp up environmental management for the NGK Group as a whole. The Environmental Management Department was established in April 2008 in order to take on these challenges and supervise consolidated environmental management.

Group-Wide Effort to Promote Environmental Management

NGK intends to further expand business activities overseas, relative to domestic operations, due to higher demand in the European and U.S. markets for ceramic products used to purify automobile exhaust and growing demand for electric power in emerging markets like China. We intend to strengthen our consolidated environmental management system in order to promote a brand of environmental management that befits a company involved in worldwide operations.

Up until now NGK's environmental management systems had been developed and implemented at each individual site, but going forward we intend to build an environmental management system for the Group as a whole. The entire NGK Group will comply with the same Core Policy on the Environment, though national and regional differences will also be taken into account. We will track and appropriately handle environmental risks and environmental impact by consolidating information for environmental management in an integrated manner. At the same time, our business groups will take the lead in promoting environmental management at Group companies in Japan and overseas, with support provided by the Environmental Management Department. This approach should improve the effectiveness of consolidated environmental management. The entire NGK Group will work together to move this new system forward.

Further Reducing CO_2 Emissions and Helping to Prevent Global Warming

NGK strives to make positive contributions to society with its proprietary ceramics technologies. In terms of the environmental impact of business activities, the most important issue at present is reducing the carbon dioxide generated when kiln-sintering ceramic products. One of the initiatives we are implementing in order to reduce CO_2 emissions is energy minimization. This consists of developing and implementing environmentally conscious processes that further reduce impact on the environment by substantially shortening manufacturing process times and improving raw material and production yields in order to minimize loss. We will also further enhance eco-processes that are already in place and extend them to other Group sites in order to further reduce CO_2 emissions.

Our long-term goal is to develop totally innovative eco-processes to substantially reduce CO_2 emissions.

Accelerating R&D on Environmentally Beneficial Products and Technologies

Our mission at NGK is to provide environmentally beneficial products and technologies to society through our proprietary, core ceramics technologies, in accordance with our Core Policy for the Environment, which is to focus on the "Triple-E" areas of Ecology, Electronics and Energy and work in these to develop solutions to some of the critical environmental challenges facing the next generation. Guided by this mission, we intend to further develop technologies for NGK's mainstay products, which include diesel particulate filters (DPFs) for purifying diesel engine exhaust and NAS® (sodium-sulfur) batteries, which facilitate utilization of natural energy sources.

In addition, we are accelerating development of technologies aimed at commercialization of nano-ceramic separating membranes, a new world-class, environmentally beneficial product that we have recently developed. These membranes will greatly help chemical plants and other factories save energy. Moreover, we are working to reduce the environmental impact of our C1 home water purifier throughout its lifecycle in order to win acceptance from highly environmentally conscious consumers.

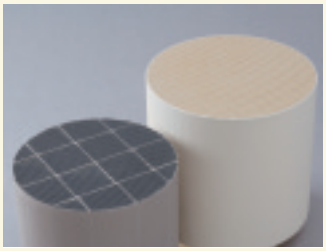
NGK is committed to being a progressive company in the area of environmental management. We will harness the collective power of the NGK Group to improve our environmental management systems and accommodate the ongoing globalization of our business activities.

Feature

Environmentally Beneficial Products and Technologies

1 Help Purify Exhaust Gas

Diesel Particulate Filters (DPFs)



SiC-DPF (left) and Cordierite DPF (right)

NGK is establishing production sites around the globe in order to meet mounting worldwide demand for ceramics used to purify diesel exhaust.

Regulations on automotive exhaust gas are being tightened not only in Europe, but also in Japan and the United States. For over 30 years NGK has provided the world's automakers with HONEYCERAM®, a ceramic product for purifying exhaust gases, to help them comply with regulations on exhaust gas produced by gasoline-powered automobiles. Purifying exhaust given off by diesel vehicles, however, is relatively difficult compared to gasoline engines. NGK has risen to the challenge and developed a ceramic product, the diesel particulate filter (DPF), which purifies exhaust gas given off by diesel-powered automobiles, successfully overcoming the stringent regulations for particulate matter, nitrogen oxides and other exhaust gases.

Diesel automobiles that meet exhaust gas regulations have become extremely popular in Europe in recent years due to their good fuel economy and reduced CO_2 emissions compared to gasoline vehicles. NGK has already established a DPF production site in Poland as of 2003. We supply silicon carbide (SiC) DPFs to Europe's major automakers to help in exhaust gas purification. Exhaust gas regulations are set to be strengthened not only in Europe, but also in North America starting in 2010. Use of DPFs will be effectively mandatory on trucks, buses and other large vehicles, construction equipment, farming equipment and other vehicles. We are therefore planning to establish a new production plant in Mexico. Production at the plant is slated to commence in September 2009.

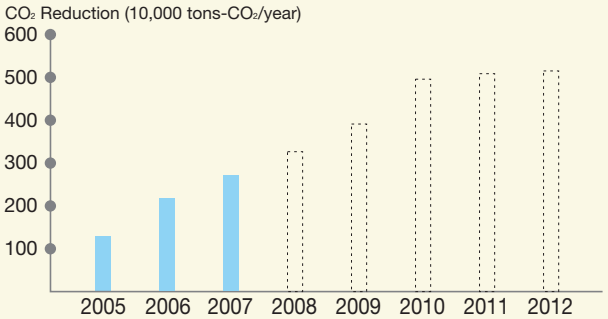
NGK is the only manufacturer in the world to supply both cordierite and silicon carbide types of DPFs. As a leading manufacturer of exhaust gas purification ceramics with a global production system encompassing Japan, Belgium, Poland, the U.S., Indonesia, South Africa, China and Mexico, we intend to continue working to develop environmentally beneficial products and technologies.

The increased popularity of diesel vehicles is helping to reduce CO_2 emissions.

Diesel vehicles give off around 25% less CO_2 emissions than gasoline-powered vehicles. Compared to the emission levels one would see if all new vehicles sold in Europe were gasoline automobiles, the growing popularity of diesel vehicles is leading to substantial reductions in CO_2 emissions.

Based on estimates that gasoline-powered vehicles give off 160 grams of carbon dioxide per kilometer whereas diesel vehicles emit 120 grams per kilometer, and that the average driving distance over the course of a year is 15,000 km, these diesel vehicles helped reduce carbon dioxide emissions by some 2.7 million tons in 2007, and are expected to reduce emissions by approximately 5.2 million tons in 2010.

■ Estimated CO_2 Reduction Benefits of DPF-equipped Diesel Engines in Europe



2 Promote Increased Use of Wind Power

NAS® Battery Power Storage Systems

A new wind power plant equipped with Japan's first power storage system began trial operations in May 2008 at Rokkasho in Aomori Prefecture.
NGK's NAS® battery systems are playing a prominent role.

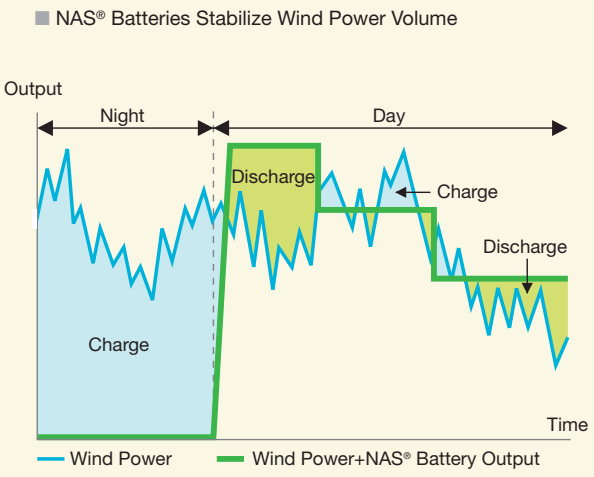
There is currently a mounting sense of crisis with regard to the problem of global warming, and expectations for new sources of energy to replace fossil fuels are extremely high. In particular, since wind power can be generated whenever the wind blows and does not give off any carbon dioxide emissions, a number of new wind farms have been established in various places throughout Japan in recent years.

However, the volume of power that is generated from the wind fluctuates depending on weather conditions, so the potential for wind power to destabilize the power grid is of some concern. For this reason there has been demand for mechanisms capable of mitigating these fluctuations. NGK's NAS® battery power storage system is connected to wind power facilities and stores power that is generated by the wind at night when demand is low. During the daytime when power demand is high, the stored power is supplied together with power being generated by the wind in order to produce stable, consistent supplies of electricity. This system has helped to advance the spread of wind power. (See the diagram below.)

Our NAS® battery power storage system is currently used at Japan Wind Development Co.'s Futamata Wind Farm in Rokkasho, Aomori Prefecture. The facility, which began trial operations in May 2008, features 34 turbines and a total output of 51,000 kW. It is one of the largest wind power generation facilities in Japan and has garnered attention both domestically and overseas.

NAS® batteries utilize NGK's ceramic technologies and are the only system capable of efficiently storing large volumes of electric power. It was the first system in the world to be made viable for practical application. Given current concerns about the depletion of oil and other energy sources and the increasingly serious problem of greenhouse gases derived from fossil fuels, NGK intends to redouble its commitment to furthering the spread of renewable energy like wind power and solar power by continuing to develop innovative technologies.

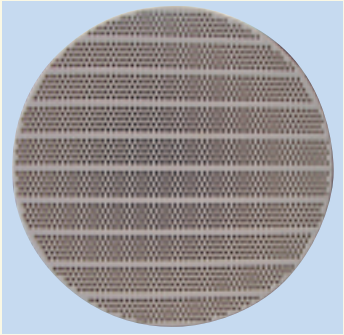
NAS® Battery Power Storage System (Rokkasho)



3 For Molecular-Level Filtering

Large Nano-Ceramic Separation Membranes

NGK has developed a world-class ceramic separation membrane with a pore diameter of less than one nanometer (one billionth of a meter) but with a surface area of 15 square meters.



Edge of a large nano-ceramic membrane

There are various methods for separating substances, including distillation and extraction, and technology that uses separation membranes is another such method. The large nano-ceramic separation membrane developed by NGK in November 2007 features extremely small pores of less than one nanometer that are used to remove particles contained in liquids or gases or to concentrate and purify substances in solution. For example, when separating out a liquid from another liquid, the liquid targeted for separation (for example, a mixture of water and organic solvent) is passed through the membrane from one side, and when pressure is lowered on the filtering side, only the water molecules are able to pass through the membrane via its pores. The substance targeted for separation remains.

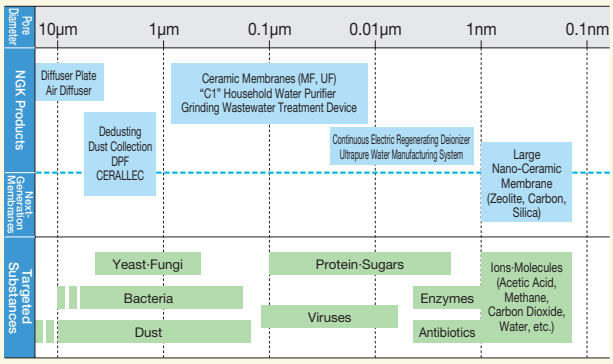
This large nano-ceramic separation membrane is able to separate substances without complicated processes such as thermal processing or chemical reactions, so it uses about half the energy of other methods, which helps to reduce CO_2 emissions. Moreover, the membrane features exceptional resistance to heat, corrosion and pressure, so expectations are high for its utilization at chemical plants and by pharmaceutical manufacturers.

NGK has utilized its proprietary ceramic technologies to develop a variety of separation membrane products, including diesel particulate filters (DPFs), membrane filtration systems for water purification facilities, household water purifiers, and precision filtration membranes and ultra-filtration membranes for the pharmaceutical, food products and electronics industries. The addition of this large nano-ceramic separation membrane to our lineup of ceramic membrane products now allows us to meet filtration-related needs at any size, from micrometers to the sub-nanometer level. This new membrane makes it possible to separate water out from organic solvents at chemical plants, something that had proven to be exceedingly difficult in the past, and filter substances at the molecular level, including alcohol concentrations and carbon dioxide gas.

We intend to expedite development of technologies to facilitate the practical application of large nano-ceramic separation membranes and continue to tackle the possibilities of this field as a leading manufacturer of ceramic separation membranes.

A large nano-ceramic membrane

■ Separation Membrane Pore Diameters and Targeted Substances



4 Features an Abundance of Eco-Design Elements

"C1" Home Water Purifiers

Water is an important resource and so are the energy and materials used to make the C1. Through its C1 water purifier, NGK is opening up new possibilities for water, the environment and living.

C1 water purifier

People who use the C1 expect their water to be especially safe and delicious and the products they use every day to be environmentally friendly. In order to meet these expectations, NGK has analyzed the environmental impact of the C1 at every stage in its lifecycle, from design to disposal. And, at every stage, efforts have been made to reduce its environmental impact. (See page 38.)

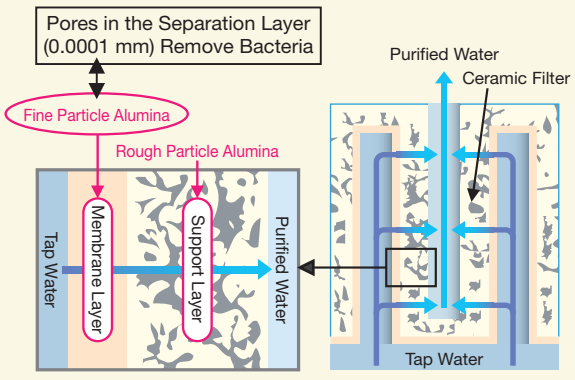
In terms of its design, the C1 has been created especially for the kitchen: it is exceptionally clean and features an environmentally conscious structure and materials that give it a long life, make it resource efficient and simplify recycling. The materials used in the C1 were selected first and foremost because they are completely free of harmful effects. In addition, the C1 is made with a highly energy-efficient and resource-efficient manufacturing process, which we continue to improve. Efforts are also being made to reduce carbon dioxide emissions when the C1 is shipped by using ecological packaging and shifting from delivery by truck to delivery by rail container. We have also established a recycling system for the filter cartridges. The cartridges are collected by NGK, dismantled and reused in various applications.

Ceramics are NGK's core technology and we provide ceramic products to various industries. Leveraging the environmentally conscious ceramic technologies we have developed to date, we plan to further raise the performance of the C1 and supply delicious water to even more people.

Why water created by the C1 is so delicious

Delicious water has no impurities and includes the right amount of minerals and just a little free carbonate. NGK ceramic filters have innumerable, uniform micro-pores. They are made of ceramics, which makes them tough against acid, alkalis and heat and maintains their performance at about the same level over time. This allows them to reliably filter out bacteria and other microorganisms. The ceramic filter used in the C1 is cylindrical with a diameter of nine centimeters and a length of 10 centimeters. It has over a thousand holes that are 1.7 millimeters in diameter. The surface of these holes is lined with a ceramic membrane that contains millions and millions of micro-pores. The filter removes microorganisms that cause food poisoning like E. coli and cryptosporidium. Moreover, the ceramic membrane is combined with activated charcoal to remove trihalomethane, residual chlorine, agricultural chemicals, chemical substances, hormone-disrupting chemicals, lead and other substances. This is what allows the C1 to make such safe and delicious water.

■ How the Ceramic Purification Filter Works



Corporate Philosophy

"NGK products and technologies must create new value and contribute to the quality of life."
Under this philosophy, NGK will proactively fulfill its social responsibilities as a corporation.

Social Responsibilities as a Corporation

A company's activities are supported by society, so it is essential that a company fulfill its responsibilities in all respects—social, public, common good, and environment.

NGK put its thinking on this matter into writing and publicized it throughout the Group by formulating the NGK Group Guidelines for Corporate Behavior in April 2003. In addition, in order to develop CSR activities on a Companywide level, in July 2005, we established the CSR Committee and continue to work proactively to ensure compliance with laws and regulations and engage in activities beneficial to society.

In April 2008, we updated and revised the NGK Group Guidelines for Corporate Behavior, adding content critical to building internal control systems and revising items as needed to better conform to legal, regulatory and social changes.

Corporate Philosophy

NGK products and technologies must create new value and contribute to the quality of life.

NGK Group Guidelines for Corporate Behavior (Excerpt)

Relationship With Society

In pursuit of more openness from management, NGK Group will improve its communication with society, and, as a good corporate citizen, will increase its contribution to the enrichment of society.

Relationship With Business Activities

NGK Group will develop safe and valuable products to meet any future social demands and satisfy customers all over the world with those products. Throughout its business activities, NGK Group consistently obeys the letter and spirit of the law and conducts its business transactions fairly, transparently, and freely. As a member of the international community, NGK Group respects regional cultures and customs and seeks to coexist with local communities. Profits earned through legitimate business activity are appropriately returned to shareholders.

Relationship With Employees

NGK Group will always show respect for basic human rights, and will vigorously support the career and skill development of its employees to enable them to lead fruitful and prosperous lives. All employees must obey labor laws and regulations as well as corporate regulations. Simultaneously, they must work responsibly and in good faith, and endeavor to enhance their own abilities.

Environmental Philosophy

On the basis of the Company's corporate philosophy, NGK focuses on the "Triple-E" areas of Ecology, Electronics, and Energy. Through our work in these areas, we seek to develop solutions to some of the critical challenges facing the next generation.

Three-year Management Plan

Speedy Management

Together with Group-up revision of the processes for all tasks, NGK is making active use of new information tools and management methods to carry out the management decisions of the globally growing NGK Group even more rapidly.

Concentration on Development

With ceramics technology positioned as a key technology, NGK is maintaining investment in research and development within the "Triple-E" business fields at around 6% of sales. The Company is striving to achieve strategic growth through the timely development of new products.

Highly-efficient Management

Aiming for a return on equity (ROE) of 10%, NGK is taking thorough steps to slim down assets through such measures as introduction of supply-chain management (SCM) and integration of equipment. The Company is further accelerating the utilization efficiency of management resources (personnel, property and funds).

Green Management

In order to fulfill its responsibility to maintain corporate excellence, NGK makes every effort to reduce the impact of its business activities on the global environment through such actions as measures to prevent global warming, recovery of resources from by-products, development of environmentally conscious products and improvement in the quality of environmental management.

Corporate Governance

In order to earn the trust of society as a good corporate citizen,
NGK is committed to further improving the fairness and transparency of its management and ensuring each and every employee acts on the basis of a strong code of ethics.

Basic Approach to Corporate Governance

The basic foundation of NGK's corporate governance consists of an organizational structure capable of ensuring the legality of business activities and the transparency of management, and quickly accommodating changes in the operating environment. It further consists of the establishment and maintenance of fair management systems oriented toward shareholders.

We formulated the NGK Group Guidelines for Corporate Behavior as a policy that embodies the Group's corporate and management philosophies and as a guide for the actions we take. These guidelines specify the Group's fundamental stance with respect to business activities and corporate behavior to ensure that it remains a company that is beneficial to society even in the pursuit of its economic goals.

The guidelines are intended to clarify the intentions of upper management, upon whom corporate social responsibility ultimately rests, and to be entrenched across the NGK Group as a whole.

Pamphlet presenting the NGK Group Guidelines for Corporate Behavior

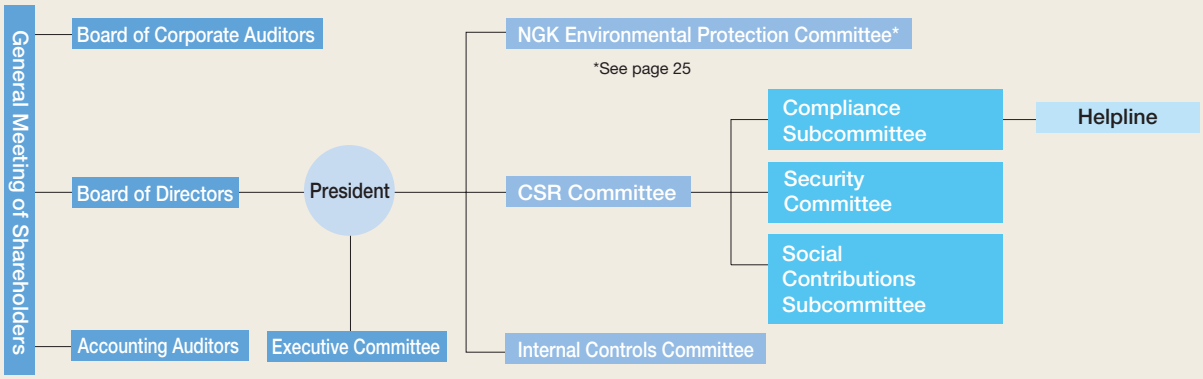
Strengthening Corporate Governance

Building and operating internal control systems is the responsibility of the Board of Directors and executive bodies under the president. We have also established an Auditing Department specializing in internal audits, which conducts audits of the business execution of our operational divisions. The Internal Controls Committee has also been established, and is charged with handling the internal control reporting system stipulated by Japan's Financial Instruments and Exchange Law.

The CSR Committee, meanwhile, is responsible for a range of activities that include formulating the NGK Group Guidelines for Corporate Behavior, ensuring that compliance with laws, regulations and corporate ethics is fully entrenched throughout the Group, and developing responses to incidents and accidents that it believes could significantly impact the Company. The committee's actions are designed to maintain and improve the level of the Group's internal control systems.

Governance System

As of April 2008



Subcommittee Functions

■ **Compliance Subcommittee**
Matters related to the law and ethics

■ **Security Subcommittee**
Matters related to incidents and accidents

■ **Social Contributions Subcommittee**
Matters related to researching, investigating and planning social contribution activities, and associated educational activities inside NGK

Compliance and Information Security

In order to earn the steadfast trust of the public we have instituted a variety of measures for deeply embedding a compliance mindset throughout the Group and for safeguarding information security.

Promoting Compliance Training and Entrenchment

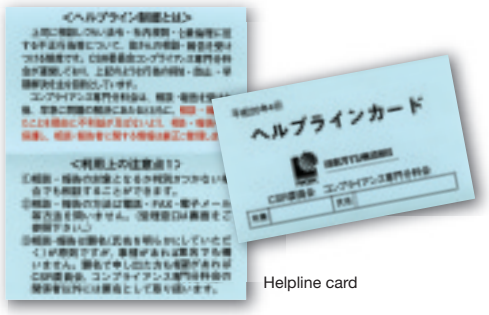
In order to raise compliance-related awareness throughout the Company and ensure business activities are carried out on the basis of this awareness, we conduct compliance training as a part of our position-based training program, which covers new hires, regular employees and middle management. The goal of the training is to provide employees with broad-ranging information, from basic knowledge to practical know-how, through instruction on the NGK Group Guidelines for Corporate Behavior, which are of utmost importance for NGK employees, and on various related laws and regulations.

In January and February 2008, we held lectures given by attorneys and other specialists on compliance for upper management, all executives and managers. Specifically for managers, we hold a liaison meeting on legal compliance in order to disseminate legal knowledge related to our business and to foster a compliance mindset. Going forward, we plan to further enhance training and PR activities in an effort to strengthen the Group's compliance system.

Lecture on the Antimonopoly Act

Helpline System

NGK has established a helpline system to offer consultation and receive reports regarding possible violations of laws, internal rules and corporate ethics. To heighten understanding of the helpline system, all employees carry an informational card containing a description of the system and contact information for consultations and reporting.



Helpline card

Information Security System

With the advance of information technology, companies have had to institute stronger security measures for information. In March 2005, NGK drew up the NGK Group Basic Policy on Information Security to establish a basic approach to information security, and presented the policy to all relevant parties inside and outside the Company.

Based on this policy, we established regulations (Company rules) to serve as standards for proper information security management. We also established practical rules for personal information, information systems and other aspects of information security. In addition, we are working to ensure the rules are faithfully followed by regularly conducting position-based training, questionnaires and audits, and ensuring prompt improvements are made when inadequacies are discovered.

With Our Stakeholders

The following pages describe NGK's activities associated with the Group's social responsibilities.

[Activities Covered]
NGK Insulators, Ltd.

With Our Employees

Employment and Human Rights Initiatives

NGK endeavors to employ personnel who are cheerful and eager to take on challenges, based upon our policies of stability and equal opportunity in employment. We also encourage independence and autonomy among our employees, and have adopted an equitable results-based compensation system and a benefit program, both weighted on an employee's contribution to the Company.

Employment Diversity and Equal Opportunity

NGK employs personnel without regard for race, belief, gender, or disability, and is striving to achieve an equal opportunity workplace.

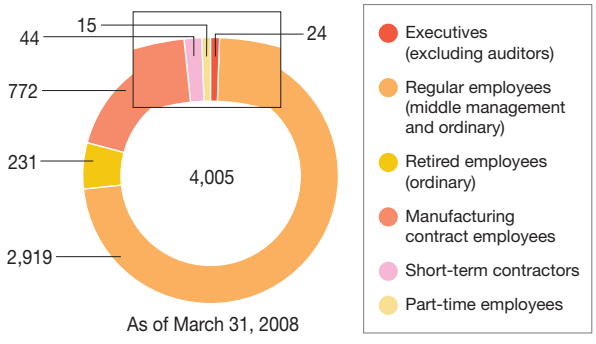
We make a concerted effort to provide equal opportunities for both men and women, in the spirit of laws pertaining to equal employment. As of March 31, 2008, women accounted for 15% of the workforce, and this figure includes five women in management positions.

The percentage of disabled employees throughout 2007 was 1.59% due to an increase in the overall number of employees. As this figure falls below the legally mandated ratio of 1.8%, we have fully committed ourselves to implementing the spirit of laws covering employment of people with disabilities.

In particular, hitherto people with disabilities have been employed only at some of our manufacturing facilities. Going forward, we will increase the categories of jobs available for people with disabilities, including office duties.

NGK's operations cover a broad range, and we are therefore striving to provide a stable employment situation by drawing up personnel plans that focus upon issues such as business expansion, including within Group companies, and increases in productivity. When hiring new staff members, we carry out a policy of ongoing recruitment from a medium-term perspective, irrespective of whether the potential employees are fresh graduates or are changing employment mid-career.

■ Employee Breakdown by Type



As of March 31, 2008

Furthermore, we are aiming for general employment stability and utilization of personnel, and are making use of temporary staff and outsourcing services in order to support variations such as those that occur when providing personnel to make up for maternity or childcare leave, or for temporary business loads. In manufacturing divisions, we have introduced a manufacturing contract employee system, and at the end of fiscal 2007, there were approximately 800 personnel employed under this system. However, as we aim to ensure employment stability, we hired about 70 of these staff as regular employees during the year.

Enhancing Motivation Through Optimal Job Allocation

To foster autonomy among employees and enhance their motivation to work, NGK operates the internal Free Agent (FA) system, an internal job application system, a career tracking system and a follow-up system for younger employees.

The internal FA system enables employees to publicize the experience and skills that they have acquired themselves, and register for positions and duties that they desire. In fiscal 2007, there were applications for one position based on this system. Based on the internal job application system, the Company discloses to employees the positions that it requires and appoints those applicants that are suitable for these positions. In fiscal 2007, 27 positions were advertised. The career tracking system supports the improvement of employees' skills, and the follow-up system for younger employees comprehensively supports new employees until their fourth year in the Company. We are steadily implementing these systems.

System for Rehiring Employees After Retirement

Since April 2001, NGK has adopted a system for rehiring ordinary, regular employees after their retirement. With the exception of those employees with restrictions placed on their work, all applicants are rehired. Contracts are renewed annually, with the upper age limit on hiring set at the age from which the employee begins receiving the fixed portion of their pension. As of March 31, 2008, we had 231 rehired employees, accounting for 8.0% of the total workforce.

Furthermore, NGK has rehired middle management staff after retirement on an individual basis for some time, but this system will be implemented on a Companywide basis from fiscal 2007. Going forward, we will make even more active use of the abilities of middle management that wish to be rehired.

Supporting Mental and Physical Health and Work-Life Balance

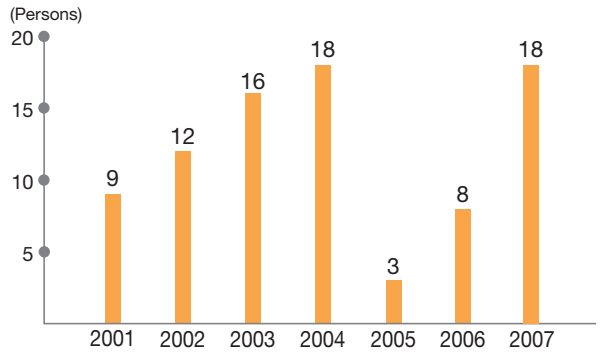
NGK is committed to helping employees maintain good mental and physical health and a good balance between work and home life. Out of this commitment we will strive to lower total hours worked during the period from fiscal 2008 to fiscal 2010 by shortening working hours, increasing vacation time and other measures.

With society aging and the birthrate declining, employees have had to become more actively involved in raising children and caring for elderly relatives, so in the area of childcare and nursing care, we have established a paid leave system to enable employees to fulfill these responsibilities. We have also taken measures to ensure the system is utilized in practice. NGK is dedicated to developing working conditions that help employees take part in childcare and nursing care based on the spirit of recent laws passed to foster Japan's next generation.

With regard to helping manage the health of our employees, various health tests are administered for employees and preventative health measures are taken based on the results, including placing restrictions on working hours.

For mental healthcare, specifically, we have contracted with a mental health specialist who is available to employees for diagnosis and consultation in an effort to address issues ahead of time. Mental healthcare is also an issue that is taken up during new manager training and other position-based training programs. In addition, to prevent exposure to secondhand smoke, smoking and non-smoking areas within the Company have been strictly divided in accordance with health promotion laws.

■ Changes in Numbers of Employees Using the Childcare Leave System



Note: Calculated from the date childcare leave began

Measures to Protect the Human Rights of Employees

NGK's employment regulations clearly prohibit harassment by employees, and the Company takes disciplinary action in response to any violations. We have concluded a labor-management agreement regarding prevention of harassment and we have established a grievance reconciliation committee comprising representatives from both labor and management. We are also implementing various measures to protect the human rights of employees, such as incorporating a harassment prevention lecture as part of our in-house training program in an effort to raise awareness.

Labor-Management Relations

NGK is building labor-management relations founded on mutual trust where both labor and management, while fulfilling their respective responsibilities, exchange opinions in a relationship of trust. We have also established various consultative bodies to provide opportunities for communication between labor and management, such as the Labor-Management Advisory Board, the Office Advisory Board and the Regular Labor-Management Council.

Labor-management Advisory Board

Human Resource Development Initiatives

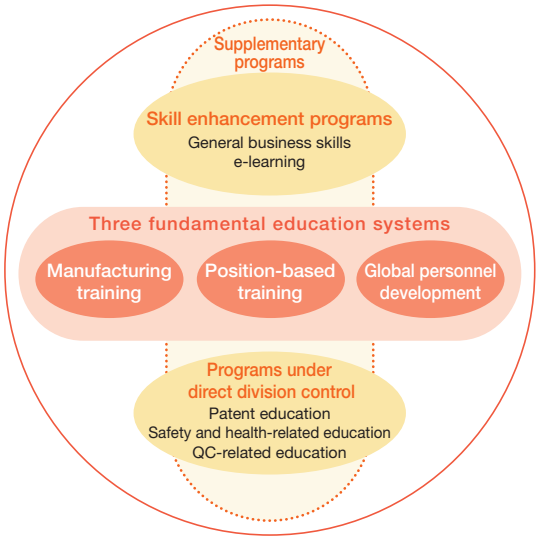
NGK considers personnel development to be one of the most important issues in responding to changes in the personnel structure at workplaces in Japan, such as employees who are more diverse, are older or who have fewer children. Personnel development is also important in terms of developing and expanding business worldwide.

In April 2006, NGK formulated a Basic Policy on Human Resource Development through which we strive to develop personnel who will pass on and develop the traditions and spirit of manufacturing, develop personnel with the abilities and judgment to support overseas business development, and provide a place for learning and growth for all willing employees at any level. In accordance with this policy we will expand our structure for personnel development and implement various measures.

Systemization of Education

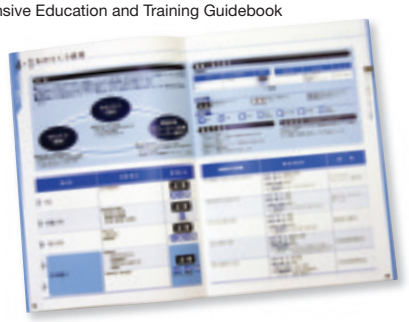
NGK is channeling substantial energy into personnel development. Amid the increasing diversity of employees, we are pursuing Companywide initiatives for ensuring that skills and technologies at manufacturing sites are reliably handed down and inherited, as well as measures for enhancing the sense of unity in the workplace and raising the motivation of our employees.

Education Program Structure



First, in relation to promotion systems, we have established a Companywide Education Council composed of top management executives. Under the council's leadership, since fiscal 2006 we have promoted personnel development based on the two major systems that comprise our education system, one revolving around manufacturing training, the other around position-based training. In fiscal 2007, we added "global personnel development" as a third key component to this system.

Comprehensive Education and Training Guidebook



Manufacturing Training

Manufacturing training is one of our three major training and education programs. Its purpose is to strengthen capabilities on the ground by steadily passing on NGK-specific skills and techniques to the next generation of workers.

In the course on manufacturing basics, which is part of the manufacturing training program, younger employees polish their technical sensibilities while using special equipment and plant facilities to learn the basics of management techniques.

The program to strengthen onsite capabilities is primarily for employees who will take on core responsibilities on the production floor as plant general managers, managers and leaders in the manufacturing division.

Participants acquire skills needed for these positions and are groomed through ongoing training and practice to become core personnel capable of promoting reforms at manufacturing sites.

Manager training

In fiscal 2007, manager training was held for middle managers and leader training was held for workplace leaders from June 2007 to March 2008.

Position-based Training

Position-based training is for new hires and middle managers and is designed to raise awareness of the responsibilities associated with these positions regardless of the division, motivate the participants and provide a sense of solidarity with colleagues at the same level in the Company. The curriculum is weighted toward contemporary subjects in the corporate world, such as compliance, environmental issues, human rights, safety and mental health.

For position-based training in fiscal 2007, we especially worked to strengthen programs for middle managers.

Grooming Global-oriented Personnel

NGK is actively working to establish and augment production sites in China, the U.S., Europe and other regions in order to accommodate rising demand overseas for environmentally beneficial products. Personnel with cross-cultural communication skills and managerial sense will be vital to this global development. In fiscal 2007, we added a "global personnel" program to our training system, and through this program we intend to further strengthen development of personnel for promoting operational globalization, which is moving forward by leaps and bounds, and personnel capable of making significant contributions overseas.

In fiscal 2007, training was held for prospective candidates for overseas posts, in areas such as communication skills, negotiating skills, skills for managing local risks, site-specific language skills and health and safety management for employees and their families.

At a global personnel training session

Toba General Training Center

Skill Enhancement Programs

Skill enhancement programs complement our three main training programs and include general business skills courses on subjects like corporate legal work and e-learning courses to further job specialization. Programs are selected for employees based on their respective needs.

Programs Under Direct Divisional Control

These are supplementary programs run by different management divisions to provide specialized knowledge in areas such as patents, health and safety, and quality control.

Global Training: Transforming Insecurity Into Security

Takehiko Watanabe
NGK Ceramics Europe

Before I started the training program it had already been decided that I would be assigned overseas, so I tackled the global training with gusto. I was surprised at how in-depth the curriculum was. It was difficult, but because of that was much more beneficial than any training program I had taken before.

I fully realized this during a business trip I took overseas for one month in December 2007. If I had gone on this trip without attending the training program I think it would have been extremely difficult and I would not have been able to adequately communicate with the local employees.

When I first learned that I'd be going overseas, I was worried both about work and daily life in a foreign country. This training gave me a sense of security. Now, I don't feel hesitant at all about going. There was a seminar on daily life that was part of pre-assignment training, and I was able to participate in it with my family. We learned the ins and outs of life in the country we would be living in. It was great to get ready for the experience together with my family.

Occupational Safety and Health Initiatives

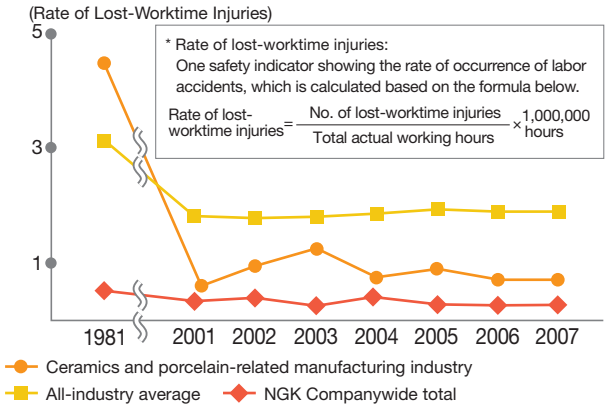
Safety and health form the foundation of a company's existence, and ensuring safety and health is also one of a company's social responsibilities.

In an effort to maintain safe, comfortable working conditions, NGK strives to prevent occupational accidents by obeying laws and regulations and partnering with employees to carry out activities in line with our Occupational Safety and Health Management Systems (OSHMS*). In this way we are working to ensure truly pleasant workplaces.

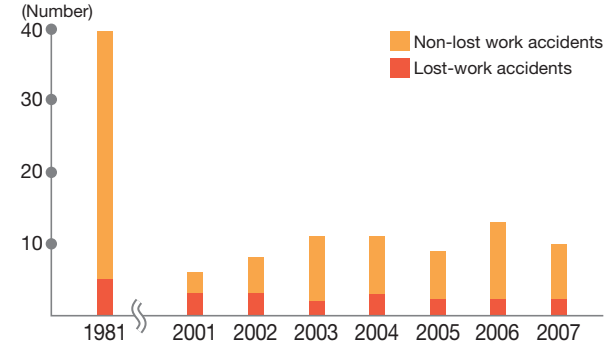
Implementing OSHMS

NGK has steadily carried out safety and health initiatives over many years, primarily at its Nagoya, Chita and Komaki Plants. However, in recent years, there has been an increase in non-formal employees working at production sites and other changes in employment formats that have necessitated new mechanisms for systematically carrying out safety and health initiatives on an ongoing basis in order to fully prevent work-related accidents.

■ Changes in Rate of Lost-Worktime Injuries



■ Changes in Work-related Accidents



* OSHMS: These are safety and hygiene management systems that aim to contribute to a rise in the level of safety and health at factories and offices by endeavoring to reduce the potential risk of labor accidents, promote the health of workers, and encourage the formation of a comfortable workplace environment.

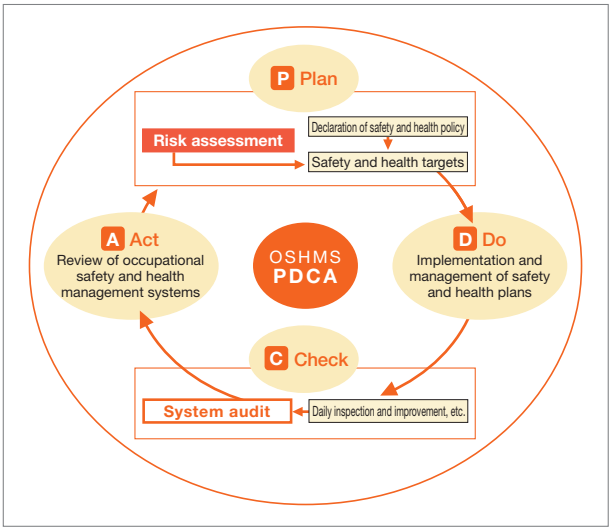
■ Companywide Activities

Category	Fiscal 2007 Safety and Health Activities		Fiscal 2008 Safety and Health Activities
	Targets	Actions Implemented	Targets
Overall	• Prepare for implementation of the Occupational Safety and Health Management System (OSHMS)	→ Implemented OSHMS as scheduled Recognized sites with excellent OSHMS	• "Identify and Rectify" activities • Obtain external OSHMS certification (Nagoya)
Safety and sanitation management	• Thorough risk management • Ensure certified work management • Strengthen joint safety and sanitation management with allied manufacturing companies in the same complex • Implement cross-inspections between business sites	→ Fully enacted upgraded risk assessment → Formulated chart for required certification management → Held two contractor liaison meetings during the year → Conducted inspections between three sites	• Extensive risk assessment • Launch required certification management system • Implement cross-inspections between business sites
Health management	• Thoroughly track employees requiring health maintenance • Strongly promote mental healthcare • Prevent damage to health caused by overwork	→ Number declined → Held lectures on mental health at business sites → Implemented health exams for all employees	• Thoroughly track employees requiring health maintenance • Strongly promote mental healthcare
Education and training	• Promote planned acquisition of certifications (Link with certification management) • Reinforce safety and health education	→ Upgraded curriculum → Enacted practical safety education	• Enacted practical safety education • Upgraded education for new employees
Traffic safety	• Education and training for safe driving for managers and commercial-vehicle operators • Implementation of traffic KY*1	→ Implemented → Instituted education programs for foremen and worksite patrols	• Education and training for safe driving for managers and commercial-vehicle operators • Implementation of traffic KY

*1 KY: Risk prediction

Given these new demands, in fiscal 2007 we simultaneously implemented OSHMS systems at our three plants and put them into operation. In order to continue to improve safety and health initiatives, we placed priority on five areas in line with OSHMS mechanisms. The areas are safety and health management, managing the safety of outside construction contractors, health management, education and training, and transportation safety.

■ Structure of Occupational Safety and Health Management Systems



Enhancing Safety and Health Education

One of the priorities of the OSHMS systems is to minimize overt risks and latent risks before they materialize into visible accidents. We therefore worked in fiscal 2007 to enhance safety and health education. As a new initiative, we started an experiential education program designed to change perceptions of risk. Most members of management participated. The program specifically involved directly experiencing the size and power of machinery, and simulated examples of human error in machinery operation.

In fiscal 2008 we plan to continue working to spread and raise awareness of OSHMS systems by expanding educational opportunities and conducting training sessions, educational programs and drills.

Striving to Minimize Risk

Kazuhiko Nakamura
Manager
Corporate Safety and Health Office

We were rather worried about whether the OSHMS systems would run smoothly once they were implemented, but everything actually went surprising well. I think the reason for this was NGK's long history of safety and health activities and the already high level of safety awareness at production sites, which meant there was virtually no resistance to the new systems. I think we also benefited from the fact that we didn't "force feed" the systems. Rather, we implemented them in line with the existing corporate culture. OSHMS systems do not just pursue results; they also emphasize hidden risks and processes. Looking ahead, we intend to take advantage of a distinctive characteristic of NGK—making steady headway toward a goal whatever it may be—and work to raise awareness among all employees.

With Our Customers

Quality-related Initiatives

Since its foundation, NGK has regarded maintaining and improving quality and reliability as one of its most important missions. Consequently, we have developed systems that emphasize quality and have implemented quality-related initiatives on a company-wide basis. To ensure this view of absolute commitment to quality is inherited effectively, we have formulated a quality policy and set annual quality objectives for NGK. We are developing various initiatives and promoting their dissemination throughout NGK. For example, based on our quality assurance system, we are developing quality-related activities, carrying out quality-related education, and improving our quality improvement activities.

Going forward, we will conduct quality activities on a consolidated basis, encompassing Group companies both in and outside Japan.

Corporate Quality Policy

NGK established a corporate quality policy in April 2007. It reads: "NGK is dedicated to quality and committed to providing valuable products and services that are trusted by our customers and respected by society." The level of quality required of a company has expanded from quality that satisfies customers (in terms of product quality, cost and delivery) to the type of quality that promotes the Company and differentiates it from its competitors; quality of technical services, for example. Quality is also expected in terms of a strong awareness of a company's social responsibilities, in areas like safety and health and protecting the environment. NGK carries out quality-related activities aimed at this comprehensive conception of corporate quality.

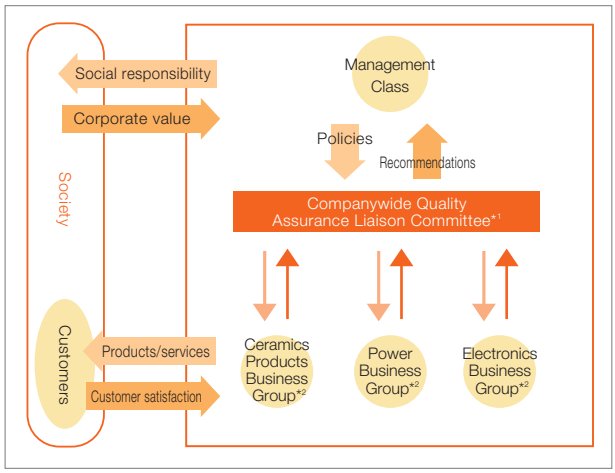
In fiscal 2008, we plan to carry out quality-related initiatives in an effort to eliminate customer complaints, focusing particularly on keeping the sources of such complaints in check.

Quality Assurance Initiatives

NGK has optimal, ISO-based quality assurance systems at the business division level. The systems adequately monitor and check quality from the product development and design stage to production launch. They feature a Design Review Committee and Manufacturing Review Committee that are joined in by members from sales divisions, engineering divisions, quality assurance divisions and other related departments who review and confirm that sufficient levels of quality have been secured. After production begins, quality is maintained or improved through quality meetings, Quality Committees and other mechanisms. We also respond to customers through a system in which Quality Assurance Departments in each business division work in coordination with other relevant divisions.

At the same time, the Companywide Quality Assurance Liaison Committee develops inter-divisional quality-related initiatives, which includes establishing policies and goals that apply to the entire Company. The committee also regularly reports on these activities to upper management.

■ Quality Assurance System



*1 Companywide Quality Assurance Liaison Committee:
Committee at NGK responsible for the proposal of quality assurance policies, improvement and elimination of quality targets, as well as coordination and support (improvement, education, audit) of quality assurance activities, all on a Companywide basis. The committee is comprised of members representing each business group, as well as representatives from head-office-related divisions.

*2 Business Groups:
Each business group is responsible for conducting quality assurance, quality control and quality improvement activities based on ISO 9001 guidelines.

Quality-related Education

The growing diversity of our employees and global business development are calling greater attention to the importance of quality-related education. Accordingly, we are conducting quality education and training through our "Manufacturing training" and "Position-based training" programs. (See page 16)

In quality-related education that forms part of manufacturing training, leaders in manufacturing departments learn improvement steps such as approaches to the improvement of defects through onsite practice, and by carrying out training where they implement these steps in their own workplace, they enhance the effectiveness of measures aimed at quality improvement. For quality-related education that forms part of position-based training, NGK provides quality training that includes quality management methods corresponding to each job position level.

Quality Improvement Activities

At NGK, we are undertaking "QuiC" activities centered on two types of quality improvement activities—proposal activities at the individual employee level and small group activities carried out by teams.

For fiscal 2007, NGK adopted the activity policy of "further enhancing improvement capability" and the activity slogan of "Let's learn improvement methods in order to produce results." We also promoted training to support quality improvement activities. This training involves considering and resolving problems that occur at worksites, for an educational process that is even more centered on actual site conditions.

Activity Name: QuiC Activity

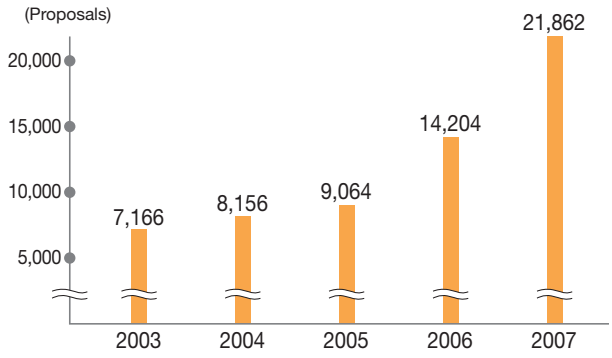
Q : Quality (of products and work)
u : Up
i : Innovation
C : Challenge

Proposal Activities

Proposal activities are a system that works as follows. Employees themselves record on a form what they have "improved" in order to do their jobs better, and then they submit these forms. Through the evaluation and recommendation of these results, employees measure their contribution to the Company.

In fiscal 2007, our efforts to promote proposal activities Companywide resulted in a roughly 50% increase in both the number of proposals and those participating compared to fiscal 2006.

■ Changes in Number of Proposals



Small Group Activities

Small group activities are activities where teams improve the quality of products, services, and work by making use of the rationale and methods of quality control. They aim to enhance the abilities of each person, achieve self-realization, and foster team work. These lively small group activities continued during fiscal 2007, and included Companywide presentations conducted by teams selected from each department.

Fiscal 2007 QuiC Activity Results Presentation

The Joy of Seeing a Proposal Through to Fruition

Masahiro Ito
AC Factory
Ceramics Division

Some of the proposals I had made were recognized and I had the opportunity to participate in a training course overseas in November 2007. One of my proposals that left a notable impression was my idea to directly reduce environmental impact in everyday work activities by substantially reducing dummy sintering time and raw material loss during long holidays.

It was exciting to see my ideas take root at the workplace and actually produce the expected results.

The key to coming up with ideas is knowing where to look. Hints can generally be found in things that are casually overlooked. I want to continue ambitiously tackling this task and proactively making proposals at my worksite. To do this I hope to be even more observant of my surroundings.

With Our Shareholders and Investors

Investor Relations Activities

NGK seeks in its investor relations activities to provide impartial and fair information to all shareholders and investors, and to foster communication between both sides.

Basic Policy

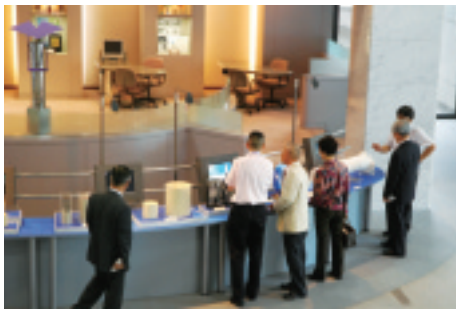
Communication between a company and its stakeholders is essential to establishing long-term, secure trust from shareholders and investors. NGK provides a range of opportunities for communication in addition to the general meeting of shareholders. In parallel with the disclosure of appropriate management information at the appropriate time, we also receive valuable feedback from shareholders and investors.

Conduct of IR Meetings

NGK regularly holds IR meetings aimed mainly at institutional investors in major cities in Japan at appropriate times. At these meetings the Company releases information regarding its corporate value. We are also proactive about holding IR meetings in overseas locations, in line with our global business development.

General Meeting of Shareholders

NGK holds open shareholder meetings that welcome individual shareholders. In fiscal 2007, we endeavored to arrange even more welcoming proceedings for shareholders by erecting booths to explain our new products in the entrance lobby of the Company's head office, where the meeting is held, among other activities to ensure that more shareholders understand our business.



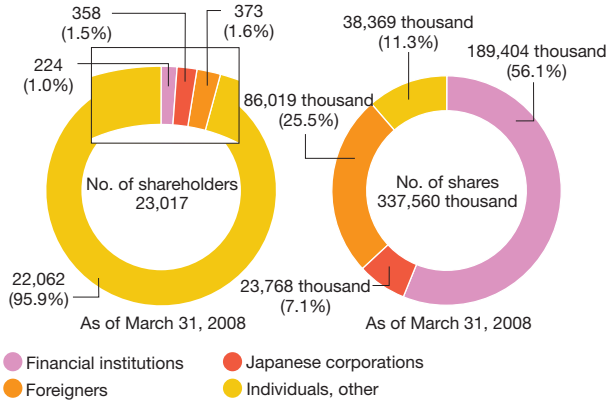
Shareholders view displays in the lobby following the 142nd General Meeting of Shareholders

Share Information

■ Status of Shares (as of March 31, 2008)

Total number of shares authorized:	735,030 thousand
Total number of shares issued:	337,560 thousand
Number of shareholders:	23,017

■ Share Distribution



Information Disclosure

NGK utilizes business reports, annual reports, and a variety of other tools for the timely and accurate disclosure of business information. In recent years, we have upgraded and expanded the IR information available on our website in response to requests by shareholders and investors.

■ The Latest Information Made Available on NGK's Website.

1 **IR-related News**
News regarding investment information is disclosed in a timely manner. Information for the previous two years is also available.

2 **IR Library**
A range of material is available, from earnings results presentations to shareholders' meeting materials, business reports and annual reports.

IR Top Page

http://www.ngk.co.jp/english/ir/index.html

With Our Suppliers

Initiatives Related to Suppliers

In the quest to manufacture distinctive products, NGK has adopted a basic procurement policy that is centered on three principles: "Open and Fair," "Partnership," and "Relationship With Society." Based on this policy, we are procuring raw materials and components that offer competitive advantages in terms of quality, technology, and cost.

In addition, from the perspective of CSR, we intend to fulfill even greater social responsibility as a company. To that end, in tandem with supplier companies that constitute our supply chain, we are actively ensuring thorough legal compliance, disclosing information, and promoting green procurement.

Fair and Impartial Procurement Activities

NGK not only promotes procurement that pursues optimal quality, price, and delivery time, but also the reinforcement of partnerships with suppliers.

To seek better suppliers, we recruit them through our website. Utilizing the interactive nature of the Internet enables us to request the participation of a broad range of suppliers. In addition, based on our fundamental procurement policy, we endeavor to comply with laws and ordinances related to procurement (including export-management-related laws and regulations and environmental-conservation-related laws and regulations) and to maintain the social environment and order. In our relationships with suppliers, we are entirely committed to fair transactions, in accordance with the spirit of the Act against Delay in Payment of Subcontracting Law. In fiscal 2007, we launched a helpline system specifically for suppliers, and strengthened measures aimed at ensuring fair and impartial transactions.

While aiming for effective communication with suppliers, we will continue to observe laws and regulations associated with procurement, and we will promote related initiatives not only by the Purchasing Department, but also on a Companywide basis.

Holding Explanatory Meetings on Business Results

We hold explanatory meetings on NGK's business results and purchasing policy for major suppliers. At these meetings, NGK's financial and materials managers provide explanations regarding earnings forecasts and points about procurement initiatives from a CSR viewpoint (environmental and legal aspects). These meetings deepen the suppliers' understanding of NGK, and we appeal for further cooperation from suppliers as well in order to provide better products to society.

Briefing on business results (held in May 2008)

Expansion and Permeation of Green Procurement

From the viewpoint of supply chain management, NGK considers such factors as the business characteristics of suppliers, their corporate size, and their track record as suppliers. At the same time, NGK and its suppliers are both aware of the importance of green procurement. For this reason, we intend to define, set criteria for, and certify our green suppliers.

With Society

Community Activities

NGK is conscious of the need to be a good corporate citizen, and by putting into practice community activities from a global perspective, is working to build a better society.

We have chosen the fields where we carry out our activities from the viewpoints of internationalization, regional contributions, employee participation, and continuity. We are promoting community activities that will make us visible in society.

Operation of the NGK Foundation for International Students

International interchange class

Since April 1997, NGK has been providing assistance to international students, mainly in the form of accommodations and scholarships. In March 1998, we established the NGK Foundation for International Students, and have been developing the operations of this foundation.

In providing accommodations, NGK has established the NGK International House, which is exclusively for the use of international students, and which accommodates 40 people. As of the end of 2007, the NGK International House has accommodated a total of 264 residents. Additionally, to create opportunities for interchange between international students supported by the foundation and local residents, non-Japanese language classes have been held for local residents at the House since April 2000, with international students as the teachers. In addition to non-Japanese language classes, cross-cultural interchange classes were also launched in 2006. As international students present their own country's culture and national costume, for example, the House has become a venue that is further deepening interchange with local residents. In May 2007, six of these international students visited elementary schools in the city of Nagoya as part of foreign interchange classes, introducing local sixth graders to the traditional dress, language and culture of their respective countries.

NGK provides scholarships to 20 students per year, including both undergraduate and graduate students. At the end of 2007, a total of 140 students had received these scholarships.

NGK International House

Holding Factory Tours

To encourage communication with local communities, each NGK business site holds factory tours for mainly for local residents and elementary and junior high school students. These tours are designed to help visitors appreciate the wonder and importance of the art of manufacturing and deepen their understanding of environmental conservation activities.

In fiscal 2007, the Nagoya Plant held six factory tours for a total of 86 people. At the Chita Plant, three factory tours involving 119 people were held. The Komaki Plant also held 11 factory tours for a total of 331 people in fiscal 2007.

Factory tour to welcome students from overseas (Nagoya Plant)

Conservation of Regional Environment

Employees at each of NGK's plants have been actively participating in cleanup activities in local communities, and are carrying out voluntary activities to protect the environment surrounding each plant.

In fiscal 2007, the Nagoya Plant took part in three activities to conserve the environment surrounding the plant, while the Chita Plant participated in six and the Komaki Plant in three such activities.

Cleanup activities near the Komaki Plant

Contribution to Local Cultural Events

NGK donated ¥150 million for the restoration of the Nagoya Castle Honmaru Palace. The historic site is the target of restoration work by Nagoya's municipal government to commemorate the establishment there of a national seat of government that once ruled Japan 400 years ago.

Overseas Community Activities

In fiscal 2007, P.T. NGK Ceramics Indonesia commemorated its tenth year in operation by donating $40,000 (about ¥4.6 million) to construct a new building at a neighboring junior high school.

Photo of the donation ceremony New building at the local junior high school

Environmental Activities

A Report on NGK's Environmental Activities

[Activities Covered]

NGK Insulators, Domestic Group Companies (13 manufacturing companies), and Overseas Group Companies (16 manufacturing companies)

Highlights of 2007 Environmental Activities

Environmental Vision

NGK's Core Policy on the Environment

Recognizing the fact that protecting the environment is one of the world's most pressing issues, NGK formulated its Core Policy on the Environment in April 1996 in order to bring its corporate activities into harmony with the environment. On the basis of this policy, we carry out activities in the "Triple-E" business fields of Ecology, Electronics and Energy, work to reduce the environmental impact of business activities, and actively strive to help protect the environment through developing products and technologies to that end.

Environmental Philosophy

NGK's positive approach to the environment begins with its basic corporate philosophy: "NGK products and technologies must create new value and contribute to the quality of life." In particular, we focus on the "Triple-E" areas of Ecology, Electronics, and Energy. Through our work in these areas, we seek to develop solutions to some of the critical challenges facing the next generation.

Environmental Action Guidelines

[a] Strive towards the development, design, and manufacture of products that are environmentally friendly, and that have a low impact on the environment.

[b] Work towards decreasing the environmental impact of our business activities. Use design review methods to scientifically study and evaluate the environmental impact of our business activities.

1) Promote energy conservation in processes and equipment, and work towards curbing CO_2 emissions.
2) Promote resource savings and recycling, and work towards the reduction of by-products.
3) Reduce risks through the appropriate usage and management of chemical substances.
4) Give priority to the procurement and purchasing of environmentally friendly materials, parts, products, and equipment. Furthermore, strengthen partnerships with suppliers of these materials.

[c] Enhance environmental management systems from a global viewpoint, and implement continuous reforms in order to reduce the impact on the environment.

[d] Strictly adhere to laws, regulations, and other requirements. Furthermore, establish voluntary standards, and work towards increased environmental conservation.

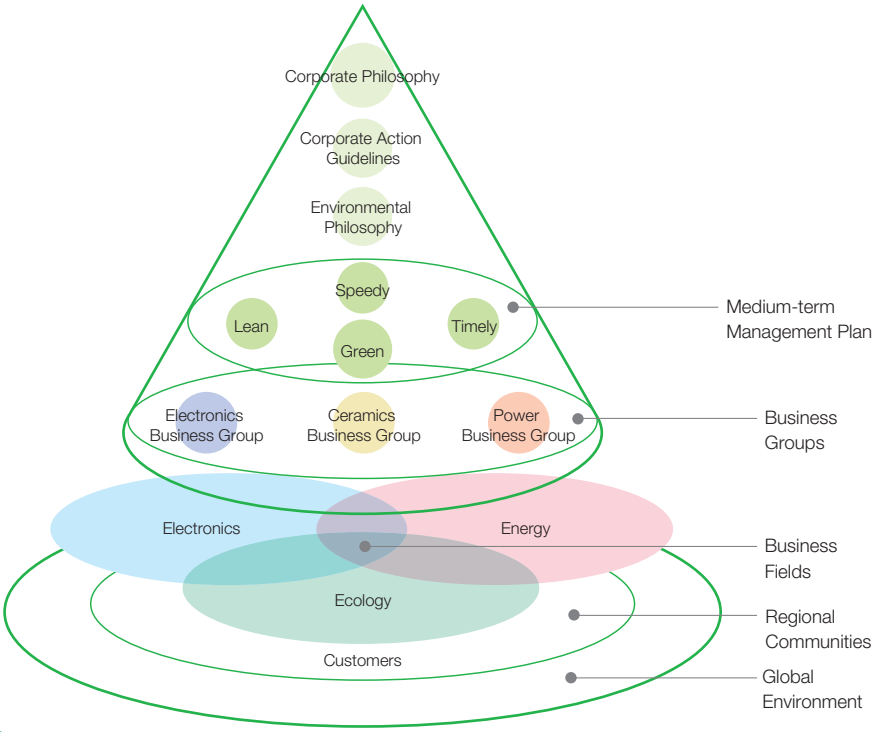
[e] Disclose environmental information to outside the Company, and continue discussions with all interested parties. Actively develop community relations activities. Furthermore, carry out training and publicity activities in order to increase employee awareness of environmental issues.

Corporate Philosophy

NGK products and technologies must create new value and contribute to the quality of life.

Environmental Philosophy

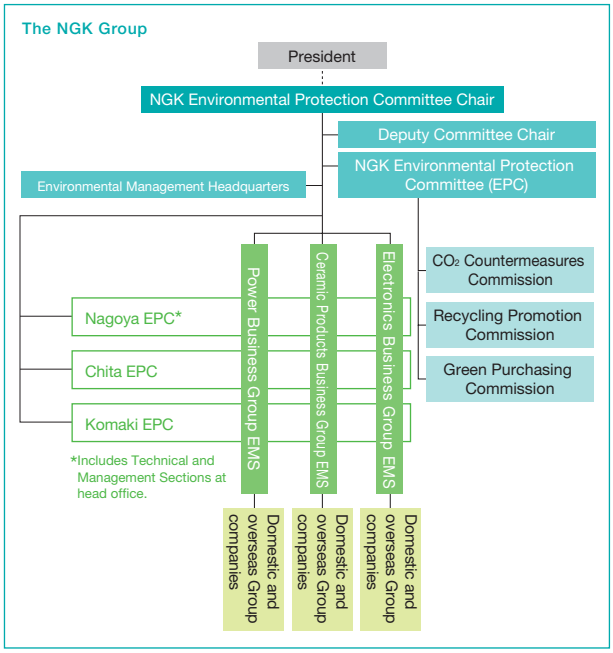
Based on our corporate philosophy, we focus on the "Triple-E" areas of Ecology, Electronics, and Energy. Through our work in these areas, we seek to develop solutions to some of the critical challenges facing the next generation.



Promoting Environmental Activities

NGK has promoted environmental initiatives through site-specific environmental management systems at the Nagoya, Chita and Komaki plants and a business group-led environmental management system. In April 2008, we established the Environmental Management Dept. In order to raise the quality of environmental management at both NGK and our domestic/overseas Group companies in Japan and overseas. We intend to further promote environmental management by enhancing our system at the Group level.

The business-group-led environmental management system aims at reducing CO_2 emissions, reducing/recycling by-products and strengthening management of chemical substances, in corporate activities including materials procurement, product development, production, distribution and sales. The entire NGK Group works together to promote environmental management under the system. Going forward, we plan to further enhance this consolidated environmental management system.



As of April 1, 2008

Hiroaki Sakai
Executive Officer
General Manager,
Environmental Management Dept.

Enhancing Consolidated Environmental Management to Further Reduce Environmental Impact

In April 2008, we established the Environmental Management Headquarters in order to enhance consolidated environmental management and further promote initiatives to reduce CO_2 emissions.

To carry out environmental management on a global scale, it is necessary to strengthen management at the level of the NGK Group, which includes domestic and overseas affiliates. In order to accomplish this we have constructed a business, group-led environmental management system and are working to share our Environmental Philosophy with Group companies and managing environmental information in an integrated manner.

In order to reduce CO_2 emissions, we plan to implement environmentally friendly production processes that reduce environmental impact by minimizing energy usage and material loss. Specifically, we intend to roll out our current eco-processes to the manufacturing processes of the domestic and overseas Group companies and establish a common yardstick for evaluation of CO_2 emissions reduction. Moreover, we also plan to develop innovative production processes in anticipation of a less carbon-reliant society in the future.

Second Five-year Environmental Action Plan

Over the years NGK has strengthened its environmental initiatives in the "Triple E" areas of Ecology, Electronics and Energy by establishing a Voluntary Plan for Environmental Conservation in March 1993 and its Core Policy on the Environment in April 1996. During the period from April 2001 to March 2006, we made steady progress in promoting environmental activities and strengthening environmental management under our First Five-year Environmental Action Plan, which was intended to raise the quality of Green Management.

Based on our Second Five-year Environmental Action Plan, which got under way in 2006, we set more challenging targets in 2007 and worked to promote environmental activities in order to fulfill our social responsibilities as a corporation. We also enhanced our consolidated environmental management system, which includes the domestic and overseas Group companies, and focused on promoting environmental management on a global scale.

Item		Targets of Second Five-year Environmental Action Plan (2006 to 2010)
Management	Promote environmental management (compatibility of business and environment)	• **Environmental CSR activities** Institute environmental management indicators (CO_2, by-products, environmental efficiency, third-party audits, etc.)
		• **Promote consolidated environmental management** • **Promote integration of environmental management data**
Factory	Reduction of environmental load	• **Reduction of CO_2 emissions** NGK: 7% reduction from 1990 Domestic Consolidated: Basic unit per sales value of production 7% reduction from 2005
		• **Reduction of by-products generated** NGK: 25% reduction from 2005 Domestic Consolidated: 15% reduction from 2005
		• **Reduction of atmospheric emission of PRTR solvents** NGK: 10% reduction from 2005 Domestic Consolidated: 10% reduction from 2005 • **Promote better chemical substance management**
Products	Provision of environmentally friendly products	• **Step up level of environmentally conscious design**
	Promotion of green procurement and logistics	• **Reduce the environmental impact of procurement** • **Minimize emissions from logistics**
Stakeholders	Promotion of citizenship	• **Promote activities that benefit local communities**
	Improvement of communication	• **Enhance disclosure and two-way communications**
	Education and awareness-raising	• **Enhance environmental education**

Note: Evaluation standards for self-evaluation:
○ Target achieved
△ 80% or more of target achieved
× Less than 80% of target achieved

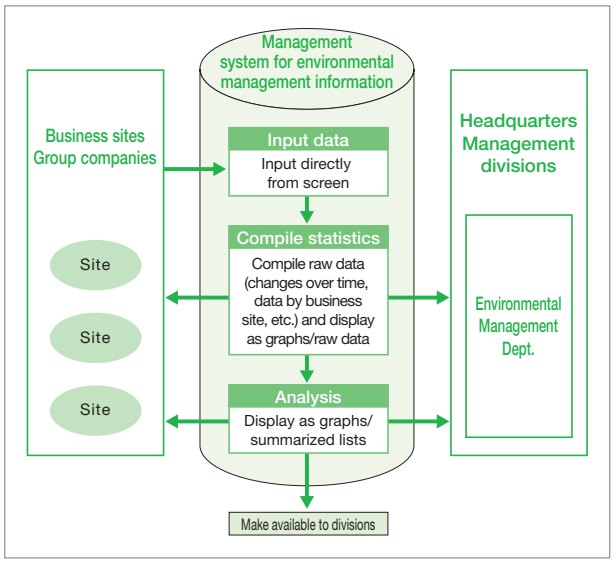
2007 Environmental Action Achievements			2008 Targets	Reference Pages
Target	Achievement	Self-Evaluation (Note)		
• Environmental CSR activities (1) Establish environmental management indicators (2) Invite third-party audits and respond to surveys	• Environmental CSR activities (1) Investigated introduction of environmental efficiency relating to CO_2 and by-products (2) Third-party audit of environmental and social responsibility report	○	• Environmental CSR activities (1) Establish environmental management indicators (2) Invite third-party audits and respond to surveys	P. 25·29
• Promote consolidated environmental management (1) Evaluate overseas environmental load estimates (2) Investigate system for overseas consolidated management • Promote integration of environmental management data (1) Develop and introduce database	• Promote consolidated environmental management (1) Evaluated overseas environmental load estimates over long term (2) Proposed system for overseas consolidated management • Promote integration of environmental management data (1) Developed and commenced partial use of database	○	• Promote consolidated environmental management (1) Introduce system for overseas consolidated management • Promote integration of environmental management data (1) Complete introduction of database	P. 25·28
• Reduction of CO_2 emissions NGK: 5% or less increase (175,000 tons) in emissions from 2006 Domestic Consolidated: Basic unit per sales value of production 2% decrease or more from 2005	• Reduction of CO_2 emissions NGK: 3.3% increase from 2006 (172,000 tons/year) Domestic Consolidated: Basic unit per sales value of production 16% decrease from 2005	○	• Reduction of CO_2 emissions NGK: 1% or less increase (174,000 tons) in emissions from 2007 Domestic Consolidated: Basic unit per sales value of production 4% decrease or more from 2005	P. 32·33
• Maintain Zero Emissions for NGK • Reduction of by-products generated NGK: 10% reduction from 2005 Domestic Consolidated: 5% reduction from 2005	• Achieved zero emissions • Reduction of by-products generated NGK: 8.4% reduction from 2005 Domestic Consolidated: 3% reduction from 2005	△	• NGK: Establish and enact second phase zero-emissions targets • Reduction of by-products generated NGK: 15% reduction from 2005 Domestic Consolidated: 9% reduction from 2005 • Conduct material flow analysis trial runs	P. 34·35
• Reduction of atmospheric emission of PRTR solvents NGK: 4% reduction or more from 2005 Domestic Consolidated: 2% reduction or more from 2005 • Investigate response to REACH regulations • Promote soil remediation	• Reduction of atmospheric emission of PRTR solvents NGK: 35% reduction from 2005 Domestic Consolidated: 12% reduction from 2005 • Decided policy in response to REACH regulations • Conducted soil contamination countermeasures at Chita Plant	○	• Reduction of atmospheric emission of PRTR solvents NGK: 6% reduction or more from 2005 Domestic Consolidated: 6% reduction or more from 2005 • Follow-up response to REACH regulations • Promote soil remediation	P. 36·37
• Promote provision of environmentally friendly products and products with low environmental load (1) Survey conditions at NGK (2) Gather data from outside the Company	• Promote provision of environmentally friendly products and products with low environmental load (1) Evaluated in-house status and needs, and identified issues (2) Gathered data on cases and analytic technology	○	• Promote provision of environmentally friendly products and products with low environmental load (1) Analyze environmental impact of product and process (2) Investigate holding workshops for each business group	P. 6–9 P. 38
• Expand green procurement (continued) • 1% reduction in basic unit for energy consumption	• Continuation of green procurement • 5.9% reduction in basic unit for energy consumption	○	• Create new green supplier standards and investigate their introduction • 1% reduction in basic unit for energy consumption	P. 22.39
• Take part in local cleanup activities • Hold summer festivals • Japan's "Team Minus 6%" eco-activities	• Conducted Jingu Higashi Park (Nagoya) and Ohyama River (Komaki) cleanup activities • Held Komaki Plant summer festival • Carried out household environmental accounting ledger program among employee families	○	• Carry out cleanup activities in various areas • Hold summer festivals • Expand household environmental accounting ledger program	P. 23.40
• Enhancement of environmental and social responsibility reports • Enactment of local environmental communication • Enhancement of EPOC	• Published environmental and social responsibility report; further raised credibility of information disclosure (third-party audit) • Explained for local residents on soil decontamination measures at Chita Plant • EPOC: Took part in Eco Campus Festival, promoted guest lecturer courses and R&D aimed at mitigating global warming	○	• Enhance environmental and social responsibility reports • Enhancement of EPOC Promote affiliations related to R&D for global warming and energy efficiency	P. 40.41
• Put job-position-based training in place • Start up departmental environmental education	• Merged and eliminated content in line with present needs • Commenced specialized basic education on wastewater and exhaust	○	• Introduce practical job position- and departmental-based environmental training • Add to departmental environmental education (awareness-raising, knowledge of chemical substances, etc.)	P. 29

Management

Promotion of Environmental Management

NGK's Second Five-year Environmental Action Plan calls for promoting the integration of environmental management information. In 2007, we began developing a database for the integrated management of environmental information in order to expedite information collection and processing on a global scale, including domestic/overseas Group companies, and to raise the quality of environmental management for the Group as a whole through information sharing and visualization. We incorporated measurement data for by-product management, exhaust emissions and wastewater into the database and put it into operation. In 2008, we are planning to complete databasing all required information and utilize the database to share information and thereby we want to minimize environmental risk on a global scale.

■ Integration of Environmental Management Data



Acquiring ISO 14001 Certification

NGK is working to acquire ISO 14001 certification, or equivalent certifications such as Eco Stage, in order to organizationally promote environmental conservation activities in line with our Core Policy on the Environment on an ongoing basis.

As of March 2008, NGK's three plants, all 13 domestic Group companies (15 sites), and 12 sites at our 16 overseas Group companies have acquired certification. In order to further promote consolidated environmental management, we intend to progressively implement environmental management systems at Group companies overseas.

■ ISO 14001 Certification Status

Business Site		Certified Sites
NGK		3
Japan Group	Power Business	2
	Ceramics Products Business	5
	Electronics Business	8
Overseas	Power Business	5
	Ceramics Products Business	6 (2)
	Electronics Business	1 (2)

Note: Numbers in parentheses represent business sites where certification is ongoing.

History of NGK's Environmental Activities

April	1972	Environmental Protection Committee and Environmental Preservation Office (currently, Environmental Management Dept.) established
June	1992	Waste Countermeasures Commission established
March	1993	NGK's Voluntary Plan for Environmental Conservation established
December	1994	Chlorofluorocarbons (CFCs) and 1,1,1-trichloroethane abolished
February	1995	Internal environmental audit conducted
April	1996	NGK's Core Policy on the Environment established
December	1996	CO_2 Countermeasures Commission established
March	1998	NGK's three production bases (Nagoya, Chita and Komaki) simultaneously received ISO 14001 certification
March	1999	Environmental Report published
April	1999	Environmental accounting introduced
October	1999	Green Purchasing Commission established
November	1999	Environmental surveys of domestic Group companies started
February	2000	Environmental Partnership Organizing Club (EPOC) established and active participation therein begun
October	2000	Chemical Substances Safety Committee established; Chemical Substances Management System introduced
March	2001	First Five-year Environmental Action Plan established
April	2001	Compilation of environmental performance data for domestic Group companies started
October	2001	Operating of Recycling Yard begun
January	2002	Compilation of environmental performance data for overseas Group companies started
April	2002	New "Green Management" medium-term management plan instituted
April	2003	Moves made toward a full business group environmental management system; "Waste Countermeasures Commission" renamed "Recycling Promotion Commission," and "wastes" renamed "by-products"
March	2004	Three-year and long-term plans for reduction of CO_2 emissions instituted
March	2005	RetBP-M30 Companywide medium-term plan for the reduction in by-products established
April	2005	Environmental Action Guidelines revised; Green Procurement Guidelines revised
October	2005	Launched third-party audits of environmental performance
April	2006	Second Five-year Environmental Action Plan established
September	2006	Launched third-party audits of environmental performance for overseas Group companies
May	2007	Introduced consolidated CO_2 and by-product targets for domestic Group companies
April	2008	Environmental Management Headquarters established

Environmental Audits

In 2007, the Nagoya, Chita, and Komaki Plants underwent internal and external audits of their environmental management systems. The audits did not turn up any major issues.

Environmental Risk Management

In accordance with our Core Policy on the Environment, we worked to prevent water and air pollution, regularly review our environmental management system and prevent accidents. We also took extra precautions by holding emergency response drills to prepare for the event of an accident.

Compliance With Laws and Regulations

In line with our Core Policy on the Environment, we complied with related laws, regulations and agreements with governing authorities, and also worked to prevent environmental pollution on a voluntary basis in accordance with standards that are more stringent than those prescribed by laws and regulations. These efforts are rooted in the pollution control agreements signed with local governments in the areas where our business sites are located. In 2007, there were no violations of environmental laws.

Emergency Response Drills

Potential emergency situations are anticipated and drills are conducted according to a yearly plan in order to minimize the spread of pollution. In 2007, we carried out drills on emergency responses to an abnormality at a water treatment plant, emergency response to an abnormality at an acid-cleaning wastewater processing facility, and for emergency response to the occurrence of photochemical smog.

Education and Awareness-Raising

In order to protect the environment, it is crucial that all employees deepen their understanding of environmental issues and engage in environmental conservation activities with that awareness. NGK's Core Policy on the Environment includes in its Action Guidelines training and publicity activities for raising the environmental awareness of employees, and we are involved in a variety of environmental education and awareness-raising activities on an ongoing basis.

Environmental Training

Business sites train employees on environmental management systems to facilitate their understanding and raise their awareness of the goals and details of site-specific environmental policies. Environmental Cards listing environmental targets for each operating division are distributed to employees. Employees also write their own personal environmental declaration on the card, which serves to further raise awareness.

In February 2008, the external lecturer was invited to talk on compliance management in a recycling-based society as a part of our special environmental training program. The lecture conveyed the importance of compliance with laws and regulations, definitions of waste based on notices from the Ministry of the Environment and governmental guidelines, and the latest information on the responsibilities of waste producers, who will be more strictly regulated in the coming years.

Special training regarding environmental laws and regulations

Promoting Certification

In order to continually improve our environmental conservation activities in line with our Core Policy on the Environment, we worked to train employees to become legally certified in ways that are needed by each business site. Certifications include those for pollution control managers, energy managers, and certified environmental measurers.

■ Number of Certified Persons — As of March 31, 2008

Name of Qualification		No. of Certified Persons	Name of Qualification	No. of Certified Persons
Senior pollution control managers		3	Qualified person for energy management	19
Pollution control managers	Dioxins	5	Qualified person for environmental measurers	2
	Vibration	10	Qualified person for heat managers	6
	Water quality 1st class	45	Persons responsible for management of special industrial waste	6
	Water quality 2nd class	11	Managers of final disposal sites for industrial waste	3
	Water quality 4th class	12	Managers of intermediate treatment facilities for industrial waste	4
	Noise	25		
	Atmosphere 1st class	39		
	Atmosphere 3rd class	2		
	Dust	3		

Overall Perspective of Environmental Impact

The Power Business, Ceramic Products Business, and Electronics Business constitute the pillars of NGK's business activities.

The diagram below shows inputs and outputs in business activities conducted by NGK itself at the stage of product development and design, the stage of procurement, including raw materials and components, the stage of product manufacturing, and the stage of sales and transportation. It shows resources and energy input as well as manufactured products and services, and substances that are discharged into the environment, including those output into the atmosphere and into water.

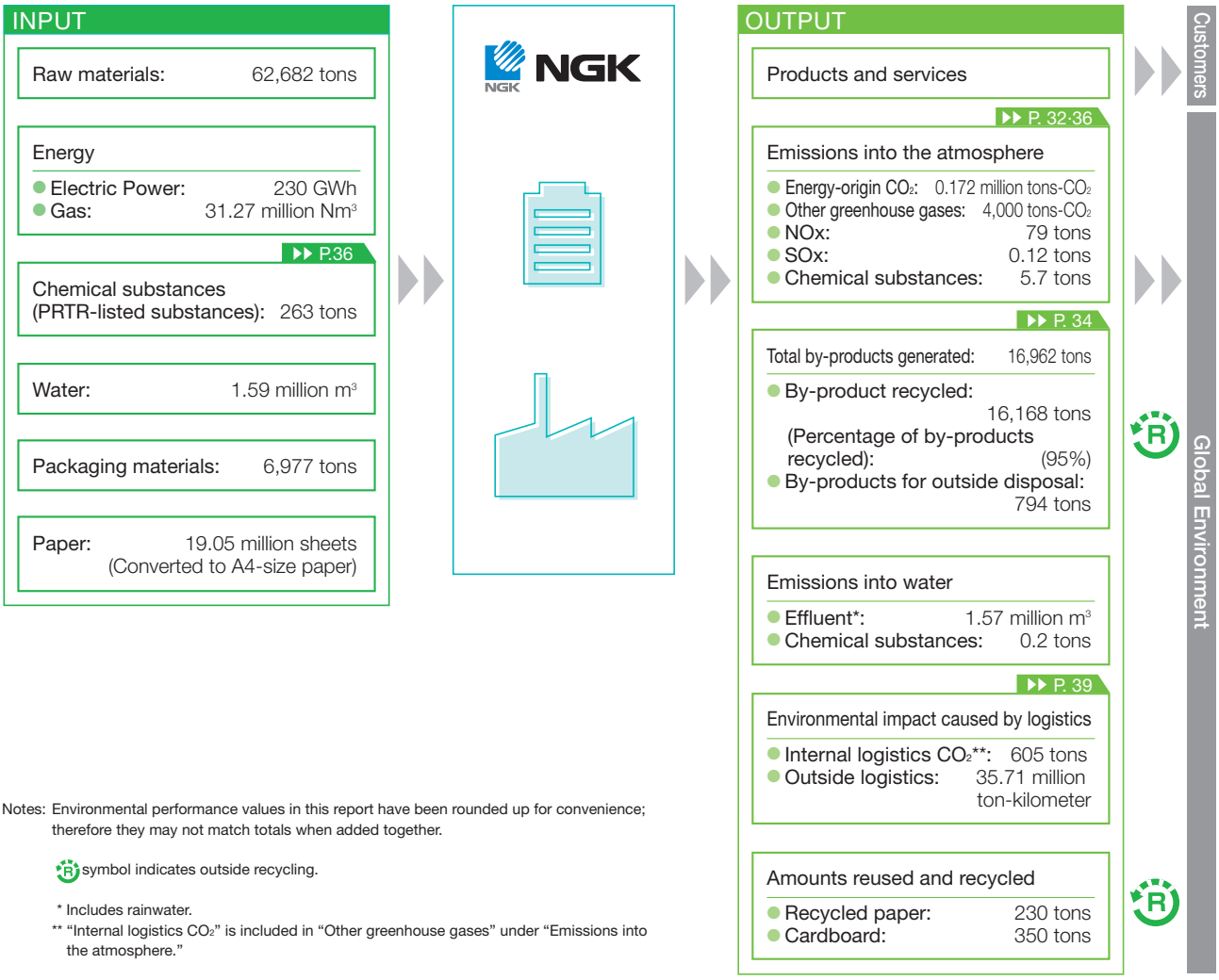
Input Overview

In terms of inputs, the main constituents are raw materials, chemical substances, and energy that are required in business activities. Other constituents include water and consumable items. To reduce the use of energy, such as electricity, and the amount of input of chemical substances in production activities, we are promoting such measures as the installation of energy-saving equipment and the recovery of discharged heat.

Output Overview

Outputs include products and services, as well as CO_2 emissions and factory wastewater from production activities, and we actively engage in initiatives to reduce outputs. In addition, we are promoting the recycling of by-products and maintaining zero emissions for external disposal volume. We have also launched measures to reduce total volume generated.

Input and Output of NGK's Three Plants



Notes: Environmental performance values in this report have been rounded up for convenience; therefore they may not match totals when added together.

R symbol indicates outside recycling.

* Includes rainwater.

** "Internal logistics CO_2" is included in "Other greenhouse gases" under "Emissions into the atmosphere."

Environmental Accounting

NGK began implementing and disclosing environmental accounting to provide important indicators for environmental management. In addition to disclosing environmental costs (capital investment plus expenditures), economic effects and cost effectiveness, which we have done for some time, in 2007 we started providing information on two new indicators, CO_2 environmental efficiency and by-product environmental efficiency.

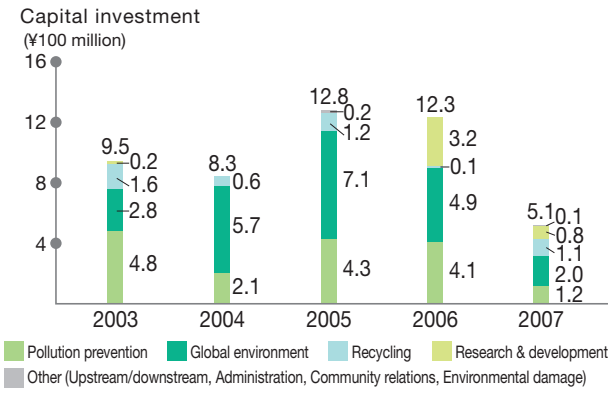
* Past years' figures have been revised as a result of improving calculation precision.

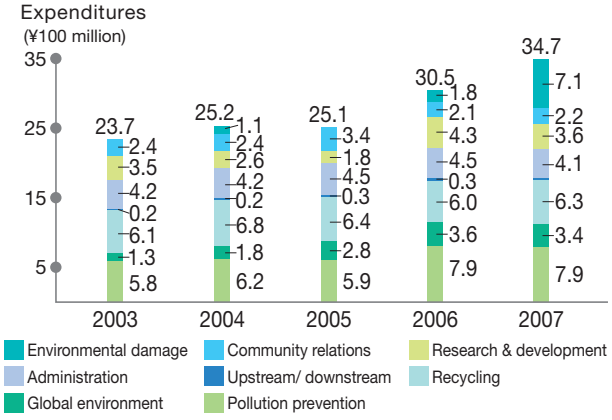
Results of Calculations

On a domestic consolidated basis, NGK's environmental costs for 2007 were ¥3.98 billion, a decrease of ¥0.30 billion from 2006. These costs included ¥0.51 billion in capital investment and ¥3.47 billion in expenditures. The direct economic effects of environmental protection measures totaled ¥1.04 billion, around the same level as 2006. Cost effectiveness was 26.1%, an increase of 1.9 percentage points compared to 2006.

On a domestic consolidated basis, CO_2 environmental efficiency (net sales divided by CO_2 emissions) was 140, an increase of 14 points over 2006. By-product environmental efficiency (net sales divided by total by-product volume) was 138, an improvement of 23 points over 2006, as we achieved substantial improvement in both of these areas.

■ Environmental Accounting—Costs (domestic consolidated)

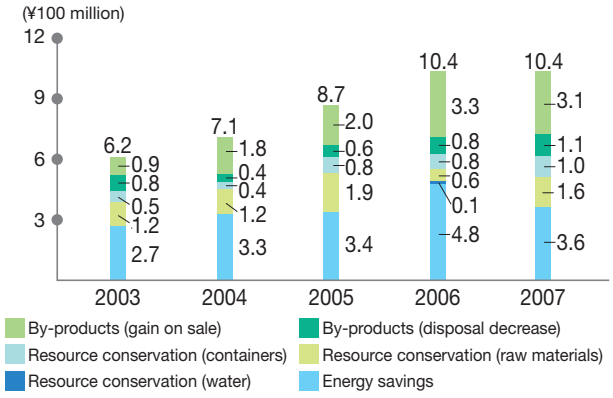




Initiatives Going Forward

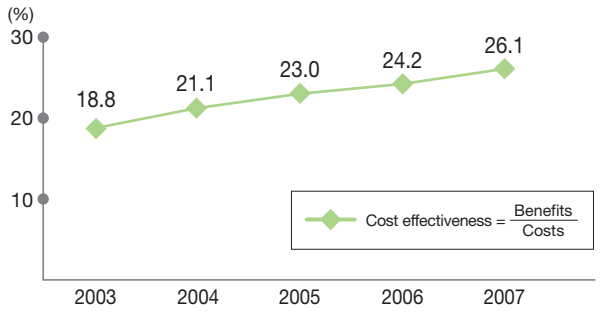
Environmental accounting provides important indicators for the NGK Group as it promotes environmental management. In 2008, and for the immediate future, we intend to continue calculating and disclosing costs, environmental effects, cost effectiveness and environmental efficiency on a domestic consolidated basis.

■ Environmental Accounting—Economic Effects (domestic consolidated)

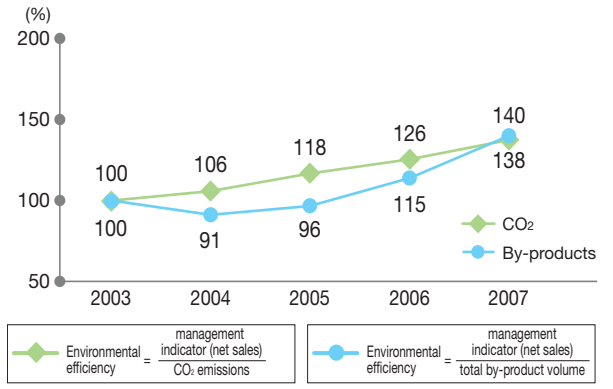


Notes: 1. Unit costs for energy, water and by-product disposal use baseline figures from 2001.
2. Cost increases have not been offset.

■ Environmental Accounting—Cost Effectiveness (domestic consolidated)



■ Environmental Efficiency (net sales divided by CO_2 emissions; net sales divided by total by-product volume; domestic consolidated)



Factories

Curbing CO_2 Emissions

There is a mounting sense of crisis worldwide regarding the problem of global warming. Commitments to reduce greenhouse gases based on the Kyoto Protocol will be binding in 2008, and developed countries, including Japan, are now faced with having to further accelerate reduction initiatives. NGK produces substantial volumes of ceramic products, so it is not possible for us to completely eliminate CO_2 emissions in the sintering process. For this reason, we have worked to convert to alternative fuels, implement efficient sintering processes and promote the recovery and reuse of exhaust heat. We have also carried out energy conservation activities that include making production more efficient and improving energy usage through Companywide EMS activities.

With production expected only to increase due to the globalization of our business activities, we are working to make further manufacturing technology improvements, develop new technologies and install fuel cells that use exhaust heat in order to reduce CO_2 emissions. Going forward, we intend to reduce environmental impact while raising productivity and provide environmentally friendly products in order to help reduce the overall impact on the environment.

2007 Targets and Results (non-consolidated)
Target
Total CO_2 Emissions: increase of less than 5% over 2006 (175,000 tons)
Result
Total CO_2 Emissions: 172,000 tons

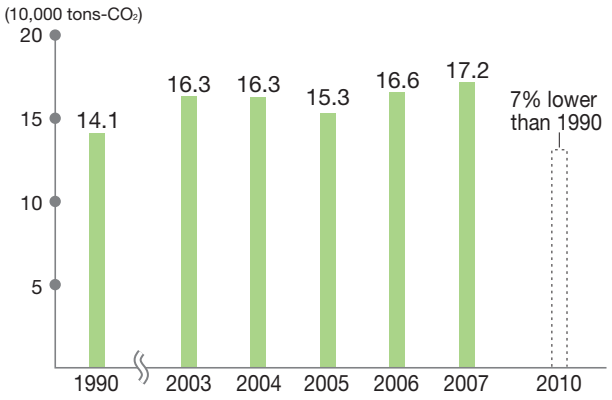
CO_2 Reduction Targets	
Total CO_2 Emissions (energy-origin)	
NGK 2010 Target:	7% reduction from 1990
Domestic consolidated 2010 Target:	7% reduction in basic unit per sales value of production from 2005

CO_2 Emissions

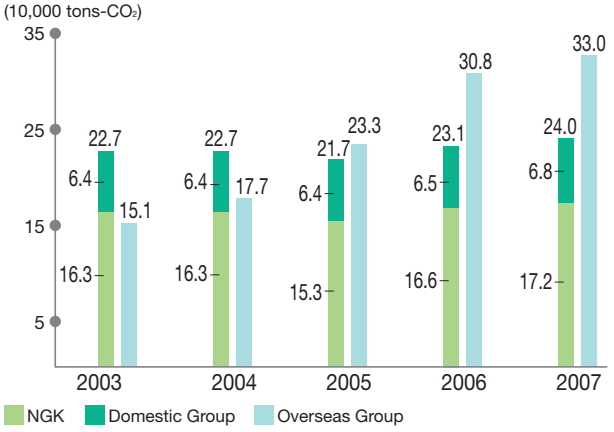
On a non-consolidated basis, NGK's total CO_2 emissions in 2007 amounted to 172,000 tons, a 3.3% increase over 2006. However, CO_2 emissions per unit of net sales in 2007 improved by a substantial 11.6% compared to 2006. Although total emissions increased in conjunction with higher production volume, the entire Company's efforts in curbing CO_2 emissions resulted in higher energy efficiency.

CO_2 emissions by domestic Group companies totaled 68,000 tons, an increase of 3,000 tons from 2006. CO_2 emissions from Group companies overseas amounted to 330,000 tons, an increase of 22,000 tons over 2006. This increase resulted from higher production of diesel particulate filters (DPFs) for the North American market.

■ Energy-origin CO_2* Emissions (NGK)



■ Energy-origin CO_2* Emissions



Establishment of Domestic Consolidated Targets and Results

In 2006, NGK established a 7% reduction in the basic unit per sales volume of production in 2010 over 2005 as its domestic consolidated target for a reduction in CO_2 emissions. As we will combine the management indicator of sales with emission reduction activities that will lead to the enhancement of production efficiency, we believe that the connection between management and the environment will be strengthened and we will be able to undertake measures to achieve our target.

In 2007, the basic unit per sales value of production showed a substantial improvement of 19 percentage points over 2005.

* CO_2 conversion factors (kg-CO_2/unit) used in calculating CO_2 emissions are as follows: Units are indicated in parentheses.Purchased electric power (kWh): 0.42 Fuel oil (L): 2.677 Diesel fuel (L): 2.64 Kerosene (L): 2.49 City gas (Nm^3): 2.347 LPG (kg): 3.007 Gasoline (L): 2.322
Sources: Federation of Electric Power Companies of Japan (fiscal 1990 actual figures), Ministry of the Environment. Some factors have been calculated independently by NGK. However, 2007 energy-origin CO_2 emission volume for NGK on a non-consolidated basis is 186,000 tons when using the CO_2 conversion factor provided by the Law Concerning the Promotion of Measures to Cope with Global Warming (revised in April 2006).

■ Basic Unit per Sales Value of Production (domestic consolidated)

(ton-CO_2/¥100 million)

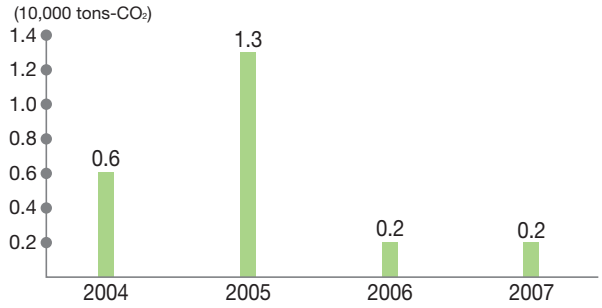
Target	Result		
2010	2005 base	2006	2007
110	119	111	100

Reducing Greenhouse Gas Emissions*

Together, carbon dioxide and sulfur hexafluoride (SF_6) account for nearly all of the greenhouse gases emitted by NGK. We have installed equipment to recover SF_6 in the production process and we are reinforcing daily management of it. In both 2006 and 2007, we were able to maintain an 85% reduction compared to 2005. Moreover, we are working to reduce emissions of SF6 for specific applications by using alternatives to the extent possible.

In 2007, we purchased 1.85 million kWh of green energy generated by wind power. The power was used to reduce CO_2 emissions at the Komaki Plant, where business targeting overseas markets is expanding. The equivalent of 777 tons of CO_2 was reduced. (See page 39.)

■ SF_6 Emission Volume at NGK (non-consolidated)



* Greenhouse gases are gases that trap thermal radiation reflected from the surface of the Earth, resulting in a greenhouse effect in which the overall temperature of the Earth rises. Carbon dioxide (CO_2), methane (CH_4), dinitrogen monoxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6) are designated as greenhouse gases. The greenhouse effect of SF_6 is approximately 24,000 times as strong as that of CO_2.

Initiatives Going Forward

To achieve its medium- and long-term targets for reducing CO_2 emissions, NGK will analyze existing eco-processes in terms of CO_2 reduction, strive to substantially shorten manufacturing times, promote higher raw material yields, and implement manufacturing processes with less environmental impact. At Group companies in Japan, we will endeavor to reduce greenhouse gas emissions under a unified set of targets while promoting emissions management at the Group level. At Group companies overseas, we intend to set targets for greenhouse gas reduction from a global perspective and work to reduce emissions of them.

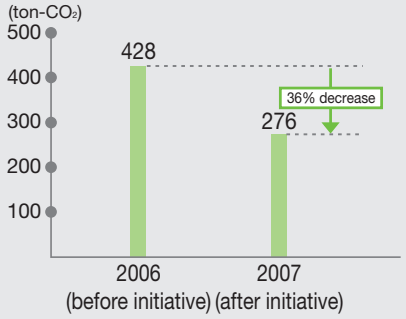
Column

Optimizing Temperatures of NAS Sintering Kiln and Deodorizing Furnace

In the manufacturing process for NAS® batteries at the Nagoya Plant, an organic binder is used when beta-alumina ceramic pipes are formed. This binder decomposes during the initial stage of sintering (when the sintering kiln is below 600°C) and is given off as exhaust gas. This exhaust gas produces an odor when oxidation is insufficient. A deodorizing furnace set up right after the sintering kiln completely incinerates the malodorous substances and gives off exhaust after the substances are rendered harmless. This deodorizing furnace, however, normally uses large amounts of energy (fuel).

By slowing the rate of temperature increase in the binder incineration zone of the sintering kiln, we successfully reduced the density of malodorous substances in the exhaust gas, which allowed us to reduce the processing temperature of the deodorizing furnace from 800°C to 700°C without any change in odor concentration. This initiative successfully reduces CO_2 by approximately 150 tons and fuel costs by around ¥3.5 million per year.

■ CO_2 from Deodorizing Furnace



Toshiji Kitagawa
Assistant Manager
Ceramics Manufacturing Group
Manufacturing Department
NAS® Battery Division

Slowing the rate of increase in the temperature of the binder incineration zone ends up prolonging sintering time, and although we recognized that slowing the rate would improve the odor problem, a longer sintering time would mean that we would not meet our production targets for the year. So the issue was how to eliminate odor while still meeting production targets.

We improved the entire sintering schedule and worked extremely hard to shorten sintering times without impacting product quality. Putting our focus on raw material activation levels and sintering speed, we conducted many tests on shortening sintering times and finally found a set of conditions that would not affect product quality.

Recycling and Reducing By-products

In the quest to achieve a sustainable society, efforts that contribute to the emergence of a recycling-based society, one in which precious natural resources are used effectively and not wasted, is an extremely important issue, as are steps to develop a less carbon-reliant society.

In 2005, NGK succeeded in achieving zero emissions by keeping outside disposal volume down to less than 1,000 tons a year. In our second Five-year Environmental Action Plan, to further promote the effective use of resources following the achievement of zero emissions, we aim to curb the total volume of by-products. Based on this plan, domestic Group companies have also set uniform targets and are working to reduce the generation of by-products.

2007 Target and Result (NGK)
Target
Total volume 10% reduction from 2005
Result
Total volume Target achieved with 8.4% reduction from 2005

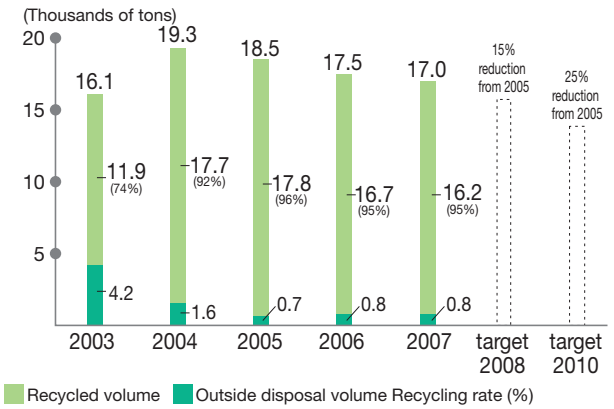
By-product Reduction Targets	
Total By-products Generated	
NGK	
2008 Target:	15% reduction from 2005
2010 Target:	25% reduction from 2005
Domestic Group	
2010 Target:	15% reduction from 2005

By-product Generation and Recycling (NGK)

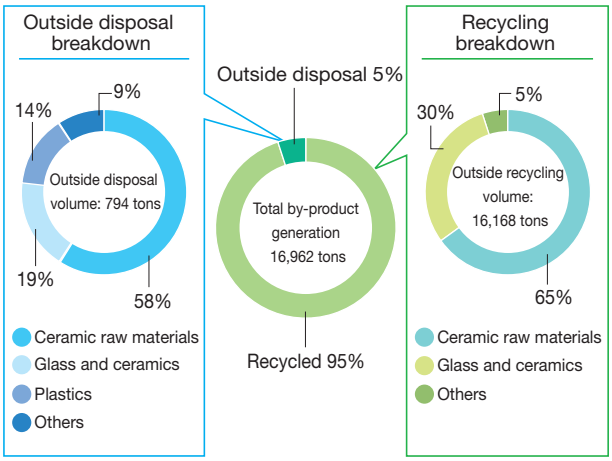
In 2007, the total volume of by-products generated by production processes at NGK amounted to 16,962 tons. This was 1,563 tons less than in 2005, and, at 8.4%, was very close to our target reduction of 10%. Despite expanding business operations, this result reflected the effects of measures to reduce the generation of ceramic raw materials from diesel particulate filter (DPF) and HONEYCERAM® production processes, and cement sludge and low-grade clay derived from insulator production.

The outside disposal volume was 794 tons, therefore, a zero emissions level has been maintained since 2005, and the recycling rate was 95%.

■ By-product Volume and Targets (NGK)



■ Recycling and Outside Disposal (NGK)

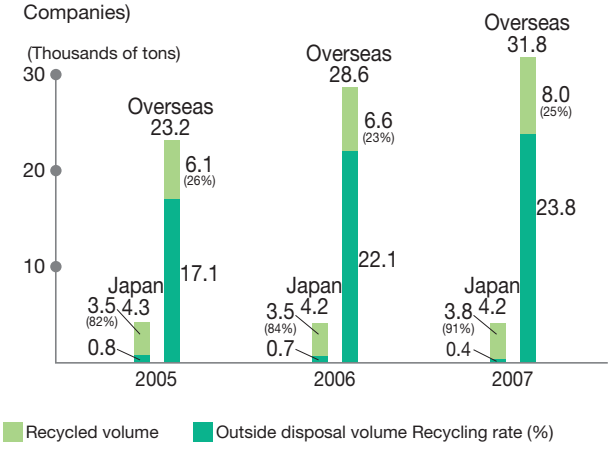


By-product Generation and Recycling (Domestic and Overseas Group Companies)

Domestic Group companies in Japan produced a total of 4,195 tons of by-products in 2007, and the recycling rate was 91%, an improvement of 8% compared to 2006.

Overseas Group companies produced a total of 31,794 tons, an 11% increase from 2006, although the recycling rate improved by 2%.

■ By-product Generation (Domestic and Overseas Group Companies)



Improving By-product Recycling

NGK has undertaken activities since 2006 aimed at reducing the total amount of generated by-products. By-products that cannot be eliminated are recycled, and we are also working to improve the quality of our recycling efforts from the standpoint of effective resource use. This is being done by ranking recycling methods in the order of (1) reuse, (2) material recycling, and (3) thermal recycling.

■ Improving By-product Recycling

Targeted Materials	Pre-Improvement	Measures	Post-Improvement
Stretch film for products Product trays Styrene foam	RPF* Thermal recycling	Better sorting New compacting equipment	Plastic materials Material recycling
Wood pallets	Wood chips Thermal recycling	Design/ material review	Use of plastic to extend life Post-use plastic materials Material recycling
Glass containers (reagent containers)	Subbase materials	Better sorting	Glass cullet Material recycling
Cafeteria garbage	Incineration	Search for new vendors	Fertilizer (composting)

* RPF stands for Refuse Paper and Plastic Fuel, which is fuel made from solidified waste paper and plastic.

We have worked for some time to effectively use ceramic materials generated during the manufacturing process, reusing them as raw materials for fireproof bricks for example, but we are now ramping up recycling initiatives for non-ceramic materials as well.

For example, we had previously recycled plastic stretch film and product trays used in the manufacturing process for HONEYCERAM®, as well as polystyrene foam used in its packaging, into refuse paper and plastic fuel, but as a result of creating better sorting processes, which include removing attached seals, we now recycle these into plastic materials.

Initiatives Going Forward

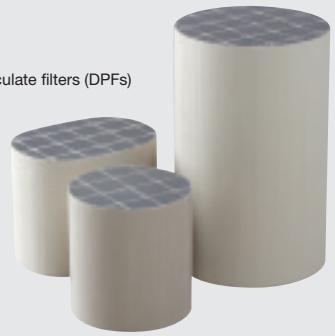
In 2008, production of diesel particulate filters (DPFs) and HONEYCERAM® is expected to continue to increase, so we will work to reduce the total volume of by-products by increasing yields, improving production technologies and reassessing the design of production processes. Our goal is to reduce total by-product volume by 25% compared to 2005 levels by the year 2010, and we plan to implement initiatives to this end. Domestic Group companies will focus on reducing total by-product volume based on a common target for 2010 of a 15% reduction compared to 2005.

Column

Reducing By-products at the NDF Plant

With by-product volume increasing alongside higher production volumes, the Komaki Plant's NDF plant is carrying out the following measures to reduce by-products. 1) The plant is reusing cutting scraps generated during processing of product dimensions as raw materials. 2) It implemented measures to improve raw material yields by reducing portions not used as products, etc. 3) Management issues were identified for each process and measures were implemented to stabilize yields. In addition to these activities, the plant has also worked to implement a variety of other improvements in order to reduce by-products.

Diesel particulate filters (DPFs)



Yukio Hikichi
Manager
Production 2
NDF Plant
Manufacturing Division

CO_2 emissions and by-product volumes had increased at the Komaki Plant, and the NDF plant was identified as the cause. When I attended various subcommittee meetings, I was strongly encouraged to try to reduce these volumes. We worked to do so while cooperating with other related divisions and slowly but surely implemented reduction initiatives. I think this is why we were able to exceed our targets. We plan to continue working to reduce by-products while cooperating with other divisions and sharing expertise.

Management of Chemical Substances

NGK observes applicable laws and regulations governing the appropriate management of chemical substances. We strictly manage approximately 7,500 chemical substances through use of a chemical substances management system. We are also continuing to implement initiatives to reduce environmental impact caused by hazardous chemical substances, by limiting release of substances regulated by the PRTR Law* and using alternative substances when possible. A particular focus is reducing atmospheric emissions of PRTR-listed solvents. NGK and its domestic Group companies are currently in the process of reducing atmospheric emissions based on a set of targets established for 2010.

In addition, we have established a policy for complying with the REACH Regulations,** which went into force in June 2007, and are currently working to stabilize material and product distribution.

* PRTR Law: The Pollutant Release and Transfer Register Law
** REACH Regulations: Registration, Evaluation, Authorisation and Restriction of Chemicals

2007 Targets and Results (NGK)
Target
Reduce atmospheric PRTR-listed solvent emissions by 4% over 2005
Result
35% reduction

Reduction Target for Chemical Substances	
Atmospheric PRTR-listed solvent emissions	
NGK 2010 goal :	10% reduction compared with 2005
Domestic Group 2010 goal :	10% reduction compared with 2005

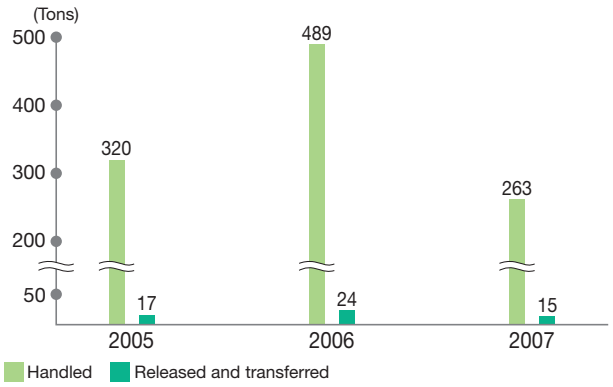
Handling of PRTR-Listed Chemical Substances

The PRTR Law specifies 354 Class 1 chemical substances. NGK handled 59 of these substances in 2007 and the total volume handled was 263 tons, down 226 tons, or 46%, from 2006. The decrease was due to changes in production volume. Total releases and transfers amounted to 15 tons, a decrease of 36% from 2006.

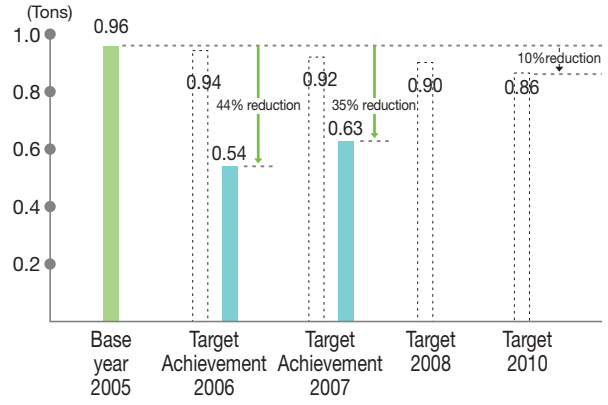
NGK has set a goal of reducing atmospheric emissions of PRTR-listed solvents. On a non-consolidated basis, atmospheric emissions of solvents in 2007, which include toluene, xylene, dichloromethane, etc., totaled 0.63 tons, which put us substantially below our target of 0.92 tons.

Atmospheric emissions of PRTR-listed solvents in 2007 by domestic Group companies in Japan totaled 4.8 tons, which represents a 12% decrease from the baseline year of 2005 (5.5 tons).

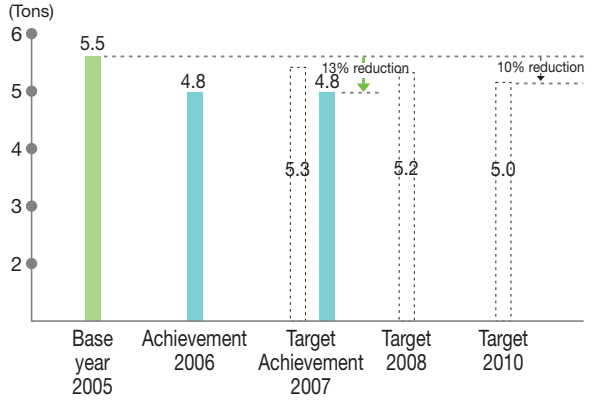
■ Amounts of PRTR-listed Substances Handled, Released, and Transferred (NGK)



■ Progress of Atmospheric Emission Reduction Plans for PRTR-listed Solvents (NGK)



■ Progress of atmospheric emission reduction plans for PRTR-listed solvents (domestic Group)



Appropriate Handling of PCB

The PCB Special Measures Law went into force in 2000 and made it mandatory for companies to appropriately handle and store polychlorinated biphenyl (PCB) and report information on its handling to local government authorities.

NGK completed PCB surveys of its three plants and domestic and overseas affiliates in 2001, established guidelines to prevent lost containers and PCB leakage or dispersal and enhanced storage management by establishing centralized storage facilities.

As of March 2008, 139 condensers with registered high concentrations of PCB and three PCB waste oil drums have been processed in accordance with the PCB Special Measures Law by the PCB waste treatment facility at the Toyata Plant of Japan Environmental Safety Corporation (JESCO). All registered PCB waste that is capable of being treated at the JESCO plant has now been processed. Going forward, we will continue to strictly manage and appropriately process all remaining PCB waste.

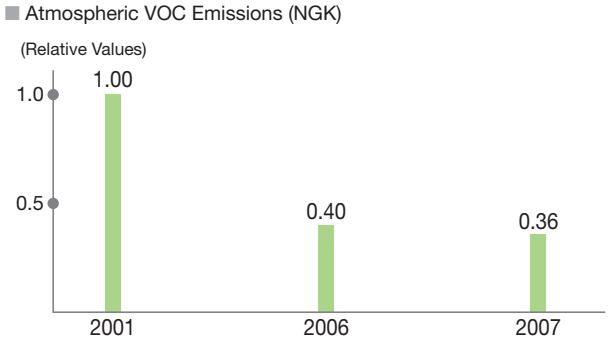
PCB being loaded for processing

PCB storage unit

Atmospheric Emissions of Volatile Organic Compounds (VOCs)

VOCs, one of the causes of photochemical smog, have been subject to regulation since 2006, following amendments to the Air Pollution Control Law. NGK does not have any facilities covered by these regulations, but we are working to reduce VOCs by participating in voluntary industry initiatives.

In order to reduce atmospheric emissions of VOC, we have installed incineration-based removal equipment at the Nagoya Plant and cooled recovery equipment at the Chita Plant in order to process VOCs before they are released into the atmosphere. We are also simultaneously working to reduce VOC handling volume by raising the production efficiency of manufacturing processes. As a result of these efforts, atmospheric emissions of VOC in 2007 were around 64% lower than 2001 levels.



REACH Compliance Policy

NGK has major production plants in Europe and procures raw materials from within the EU, so we are required to rigorously comply with the EU's REACH chemical regulations.

The most efficient way to comply with REACH is to conduct registration upstream on the supply chain and communicate reliable information, so for substances requiring registration we will request upstream suppliers to register the substances' information and check on their compliance status. We also intend to handle inquiries from customers on NGK products through coordination among related divisions.

Initiatives Going Forward

NGK will strive to reduce releases and transfers of PRTR-listed substances. For atmospheric emissions of PRTR-listed solvents, we intend to maintain levels below our target and continue to consider use of alternative solvents. For volatile organic compounds, we will continue working to further reduce atmospheric emissions. Our Group companies in Japan will also promote initiatives to limit atmospheric emissions of PRTR-listed solvents.

Products

Development and Design Initiatives

NGK works to incorporate environmental considerations into its products at every stage of their lifecycles, including design, production, transport, use and post-use, based on a life cycle assessment (LCA) approach, in order to minimize the environmental impact from carbon dioxide, waste and chemical substances.

One example of this approach is seen on the lifecycle of the "C1" home water purifier for general consumers (see page 9). We have analyzed the product's environmental impact, from the design stage to disposal, and are working to incorporate eight different categories of environmental considerations into the product in order to provide a system that is satisfactory to both the manufacturer and user in terms of its environmental impact.

1. Design Stage

Because the C1 is used in the kitchen, its design and the materials used in its casing are important. The design was selected for a Good Design Award in 2002-2003, and the casing is made of stainless steel in order to extend the product's life and ensure cleanliness. The filter cartridge, which is returned to us following its use, features a structure and materials that make it easy to recycle.

2. Manufacturing Stage

The most important component of the C1 is its ceramic filter. However, when ceramic filters are manufactured, a deal of carbon dioxide is emitted in the drying and sintering process. The filter is sintered at an especially high temperature, so it is not possible to avoid energy-derived CO_2 emissions. NGK places ultimate priority on reducing carbon dioxide emissions in drying and sintering processes, so we are working to make more efficient use of the space within the sintering kiln and improve drying efficiency. We are also working to reduce the amount of energy that is needed for production by raising yields. The C1's manufacturing process also produces alumina by-products, so efforts are being made to recycle the by-products by reusing them in other parts of the process.

3. During Transport

Recyclable cardboard is used for the C1's packaging. In order to reduce carbon dioxide during transport, we switched from delivering the product by truck to delivering it in rail containers, which reduces CO_2 emissions by 83%.

4. During Product Use

No energy is consumed when the C1 is used. One filter cartridge is able to purify 7,500 liters of water before it needs to be replaced. If purified water were to be used instead of disposable 0.5- and 2-liter plastic bottles, it would be equivalent to reducing carbon dioxide by approximately 1.3 tons compared to the former and approximately two tons compared to the latter, based on comparisons with CO_2 volumes produced in manufacturing and incinerating plastic bottles.

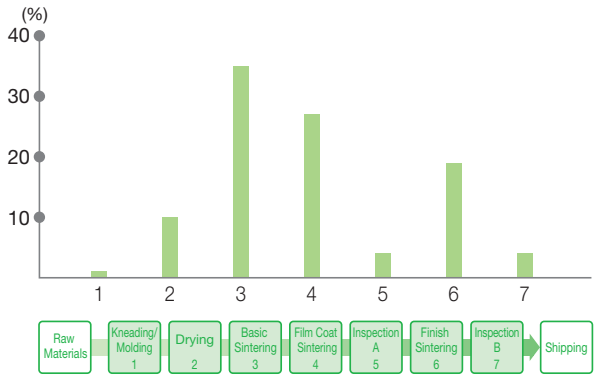
5. Reuse and Recycling

We have created a recycling system specifically for the C1 in order to facilitate recycling of used filter cartridges. The cartridges are collected free of charge, and we have achieved a recovery rate of over 80%.

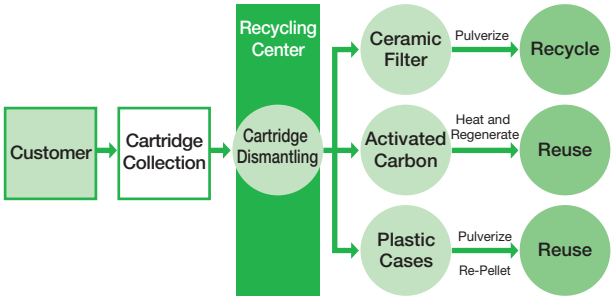
The same developers that designed the structure of the cartridges also designed the machine for dismantling them, which has improved the efficiency of the recycling process. ABS resins, ceramic filters and activated carbon removed from the cartridges and sorted are converted into raw materials and used as resin materials, ceramic materials and deodorizers.

NGK will continue to focus on reducing the environmental impact of the C1 throughout its lifecycle while working to provide recycling and services at appropriate costs.

■ CO_2 Emissions During C1 Production (relative values)



■ Used Cartridge Recycling



Environmental Activities Related to Procurement and Logistics

To reduce the impact of its business on the environment, NGK not only carries out proactive measures within its own business sites, but also promotes environmentally friendly procurement. Purchases are made in line with our Green Procurement Policy, which covers all products and services involved in our business. The range of purchases includes raw materials and parts, services, manufacturing equipment, and office supplies.

Green Procurement Policy

1. NGK conducts green procurement of all materials, components, manufacturing equipment, office supplies, and services.
2. After considering quality, price, and delivery periods, NGK gives preference to companies that provide products and services in an environmentally friendly manner.

Expanding the Scope of Green Procurement

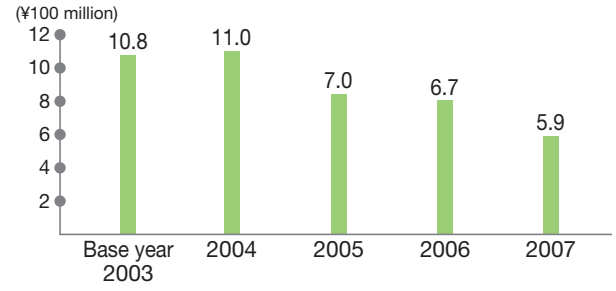
NGK works to procure materials and products in accordance with its Green Procurement Guidelines in order to comply with regulations on chemical substances specified by European chemical regulations (RoHS Directive*). In 2007 we had suppliers submit guarantees that asbestos is not used in their products.

* The RoHS Directive, issued by the European Union, restricts the use of certain hazardous substances in electrical and electronic devices. It restricts six substances: lead, cadmium, hexavalent chromium, mercury, polybrominated biphenyl and polybrominated diphenyl ether.

Green Procurement of Office Supplies

For office supplies as well, NGK is working to eliminate as much waste as possible and promote effective use of resources to reduce costs. In 2007, a Web-based purchasing system was utilized to reduce costs and save resources.

Total Purchases of Office Supplies

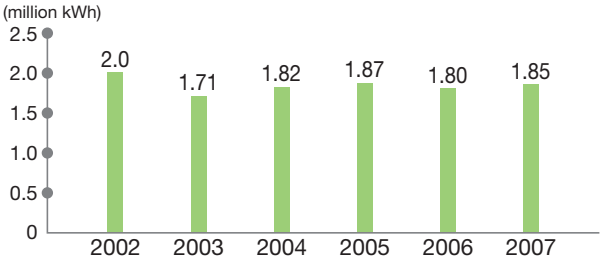


Purchasing Green Power

NGK began purchasing green, renewable energy generated from wind power in 2002. In the five-year period through 2006, we have purchased a total of 9.2 million kWh. When converted to use of regular power, this is equivalent to a reduction of approximately 3,865 tons of carbon dioxide.

We purchased an additional 1.85 million kWh in 2007, which is equivalent to reducing carbon dioxide by approximately 777 tons.

Green Power Purchases



A wind farm in Noshiro, Akita Prefecture

Energy Conservation Under the Revised Act on the Rational Use of Energy

NGK is considered as a "specified consigner" under the revised Act on the Rational Use of Energy, so we have developed a system to track energy used in transportation and a system for making regular reports based on the law starting in April 2007.

Production increased in 2007, so annual transport volume** increased around 20%, compared to 2006, to 35.71 million ton-kilometers. Under the revised act, specified consigners must reduce their fuel usage ratios (kiloliters/ton-kilometers) by at least 1%, but as a result of progressively shifting from trucking to rail (modal shift***), primarily for large accounts, we successfully reduced this ratio by 5.9% in 2007.

** Annual transport volume (ton-kilometers) is equivalent to cargo weight (tons) multiplied by transport distance (kilometers).
*** Modal shift refers to using rail and ocean liners instead of trucks for main transport routes owing to their better efficiency in order to lower environmental impact and improve logistics efficiency.

Environmental Communications

NGK is working to step up environmental initiatives both by conveying information on our environmental conservation activities and impact, and by seeking the views of stakeholders and working to deepen mutual understanding and acceptance.

Participation in EPOC

NGK is actively supporting activities as a member of the Environmental Partnership Organizing Club (EPOC), which was established to create a recycling-based society through cooperation among more than 300 companies in the Chubu region of Japan.

In December 2007, we furthered community relations by holding guest lecturer classes on water resources and water usage for elementary school students in Shanghai, China, and in Oita and Aichi, Japan, at the Asia Child "Water" Summit, which was a part of the 1st Asia-Pacific Water Summit sponsored by Oita Prefecture.

The class for elementary school students in Aichi Prefecture featured interactive communications involving discussions and experiments related to water resources and water usage.

A scene from the guest lecturer class

Support for Community Environmental Education

An employee from NGK gave a lecture on environmental conservation initiatives being conducted by the Company for participants in an environmental education course sponsored by the City of Nagoya's Lifelong Learning Center.

The participants were very interested to learn about the latest environmental conservation technologies being implemented by NGK.

The instructor from NGK lecturing in front of the course participants

Environmental Communications with Local Residents

In November 2007, the Chita Plant invited local residents to tour its facilities and participate in a presentation on the plant's production and environmental activities.

The goal was to give local residents the opportunity to directly see the types of products NGK makes and the processes used to make them in order to facilitate further understanding and support for our business activities.

A presentation being given to local residents at the Chita Plant

Participation in Team Minus 6%

Team Minus 6% is a national project to reduce greenhouse gas emissions by 6%, which is the commitment Japan has made under the Kyoto Protocol, an agreement established to prevent global warming. NGK has been participating in the project and carrying out related activities since 2005.

In addition to our various energy conservation initiatives at offices and production sites, in 2007 we began creating household environmental accounting ledgers as a new initiative for employees and their families. These ledgers are intended to facilitate awareness of global warming away from the workplace and encourage employees to reduce carbon dioxide emissions together with their families. The ledgers allow employees and their families to track day-to-day CO_2 emissions. This has led some households to conserve energy in hot water heating and air conditioning and drive their cars less frequently.

Kenji Arase
NAS Division
Komaki Manufacturing Group 1

Awareness of environmental issues has begun to blossom in Japan in recent years, so I was excited to participate in the environmental household ledger program. The program of course helps to raise awareness of the environment, but it also helped generate discussion within my family. I hope that even more employees will give the program a try.

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Plate making:
For this report, plates were made by Computer To Plate (CTP) technology enabling the complete discontinuation of the use of sheets of intermediate materials during the page makeup process.
Printing:
Because a waterless method was employed for printing, alkaline developers and acid fixing solutions were not necessary for the plate development, and isopropyl alcohol or other types of dampening water were not necessary for the ink transfer printing.
Paper:
The paper used has been made from trees grown in forests approved or managed by the Forest Stewardship Council (FSC).
Ink:
NGK has changed from using petroleum solvents to 100% use of mainly soy-based vegetable solvents. Inks used contain 1% or less volatile organic compounds (VOC).

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