



Environmental & Social Report 2008

NGK Spark Plug Group

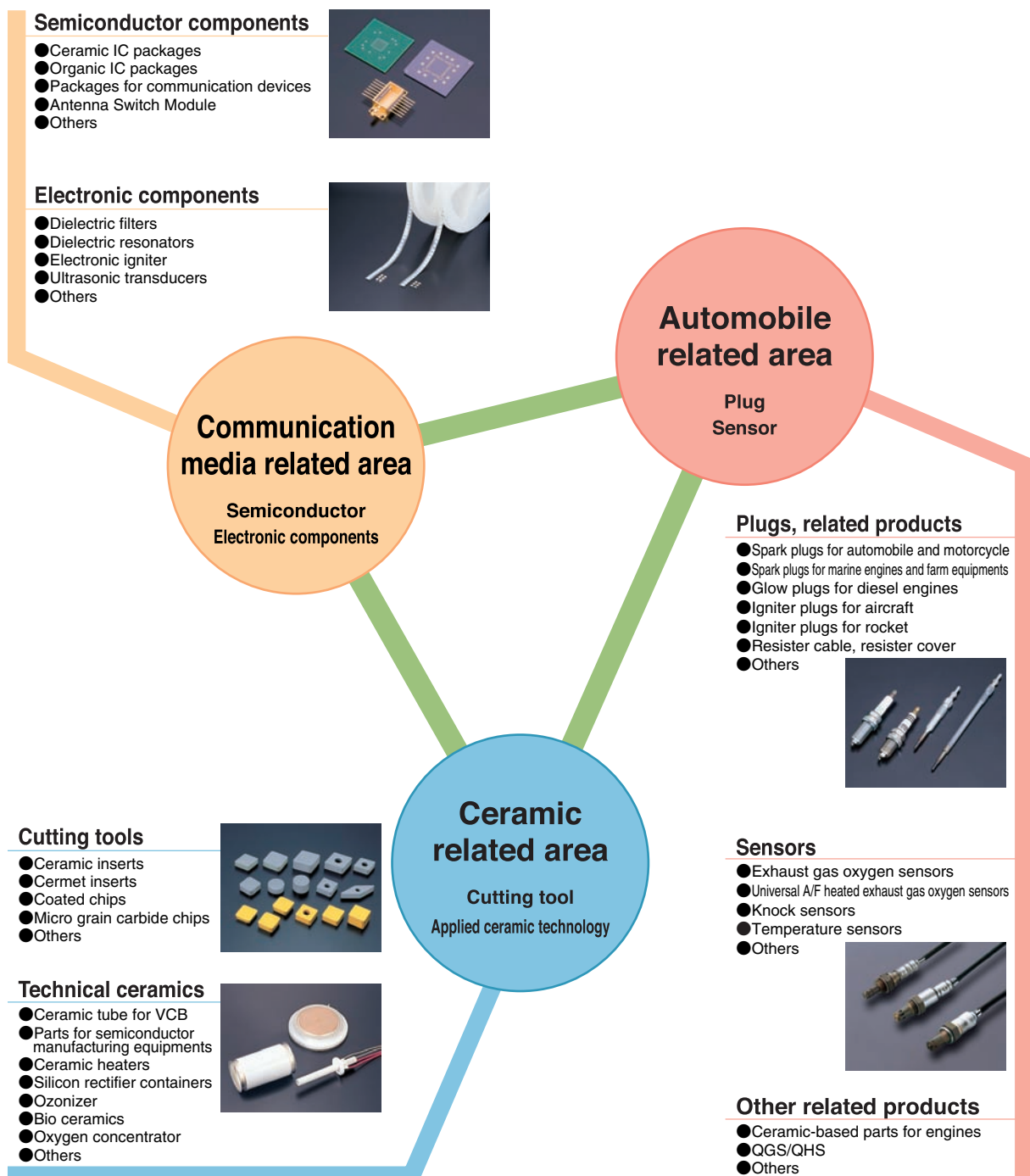




Corporate Profile

Corporate name	NGK Spark Plug Co., Ltd.
Head Office	14-18 Takatsuji-cho, Mizuho-ku, Nagoya
Foundation	October 26, 1936
Capital	47,869,270,000 yen
Business	(1) Manufacturing and selling spark plugs and related products for internal-combustion engines. (2) Manufacturing and selling new ceramics and applicable products.
Group companies	37 subsidiaries (11 in Japan, 26 overseas), 7 affiliates

Business Areas



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Editorial Policy

This ninth report has been prepared based on our corporate code of conduct with the aim of clearly describing the concepts, mechanisms, and results of all our activities.

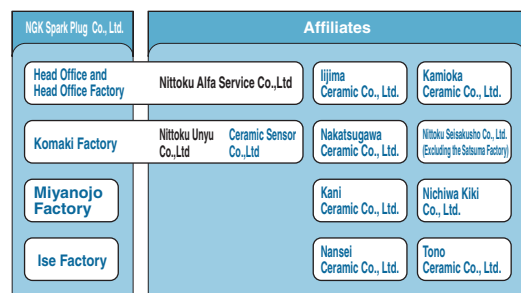
[Reference] "Environmental Reporting guidelines (2007 version)" issued by the Ministry of the Environment of Japan

Reporting Scope

Intended readers	All stakeholders including customers, investors, shareholders, residents of neighboring communities, business associates and employees.
Period covered	From April 1, 2007 to March 31, 2008 * Some other very recent activities and cases are also included.
Reporting scope	Environmental aspects : NGK Spark Plug Group Social aspects : NGK Spark Plug Co., Ltd.

NGK Spark Plug Group

For the purpose of this report, "NGK Spark Plug Group" represents NGK Spark Plug Co., Ltd. (excluding the offices, sales offices, and sales branch offices) as well as the 11 consolidated domestic subsidiaries.



Region (joint acquisition of ISO14001)

Factories and companies in blue :

① Affiliates issuing site reports

② These subsidiaries are included in the consolidated environmental accounting.

* Details of environmental preservation activities are set out in each site report.
Please contact the relevant inquiry desk on p.31.

[Publishing Director]	Norio Kato, Chief Environment Administrator
[Editor in Chief]	Yoshihide Kami, General Manager of the Environment & Safety Management Department
[Published]	August 2008
[Next Publication Schedule]	August 2009

Seeking a sustainable society



Since our establishment in 1936, we at the NGK Spark Plug Group have continued supplying the world with ceramics and supporting products based on our “good product principle” and “total involvement” mottoes. Today we inherit and carry on that same spirit, adding a “one step ahead manufacturing” philosophy, putting to work our talents in each area to promote the world's best production, supply chain, sales system upkeep and solidness. I believe that this allows us to adapt with accelerating societal change and, by extension, is connected to the forming of a global sustainable society.

Probably the biggest environmental topic this year is the start of the first commitment period of the Kyoto Protocol. Interest in global warming around the world has stepped up to a new level with much debate focused on the future. As Industries in Japan, we are well aware of the strong expectations on us to curb emissions of greenhouse gasses.

The NGK Spark Plug Group is a ceramics maker and uses lots of energy in production. We daily review our production levels and work to rationalize our processes focusing on the important issue of reducing the amount of energy that we use to control the amount of greenhouse gasses we output. Although our various initiatives resulted in meeting our fiscal 2007 reduction goals, continued operation of new factories increased our gross emission volume.

It is also important to reduce the greenhouse gasses created when our customers use our products. Products such as high performance spark plugs for automobiles and the various kinds of sensors are contributing to improvements in fuel consumption and compliance with environmental regulations. Furthermore the IC packages that support the high bandwidth and fast transmission speeds of our society of highly advanced information technologies are finding wider application in IT and increasing society's ability to save energy. In an area that affects our future activities, in 2007 we succeeded in the creation of a compact high efficiency fuel-cell system. We continue research and development with the goal that one day this product will become a household product for all.

I do not need to remind you that the future is ushering in a society wherein enterprises that do not consider the environment will not be able to continue. Based on our “one step ahead manufacturing” philosophy, we go beyond preventing global warming, continuing to believe that we can be a company that contributes to a sustainable society.

With this in mind it is my pleasure to introduce the publication of our Environmental and Social Report 2008, which broadly covers our group's activities over the year in fiscal 2007, and I hope to hear your unreserved thoughts and suggestions on how we can improve.

Norio Kato

President, Chief Environment Administrator
NGK Spark Plug Co., Ltd.

**This report was compiled in
accordance with our corporate
code of conduct.**

Corporate philosophy

**Aiming to become a proposal-making corporation,
we continue to present new values to the world.**

With global views and ideas, we pursue new values
linking technology and people.



Commitment

With full use of the most suitable technology and our accumulated experience, we continue striving to offer new values to the peoples of the world.

Management Policy

We offer a working environment in which each one of us is encouraged to make full use of his or her personality and capability. With all our power we are dedicated to pursue management based on trust and confidence.

Action Guideline

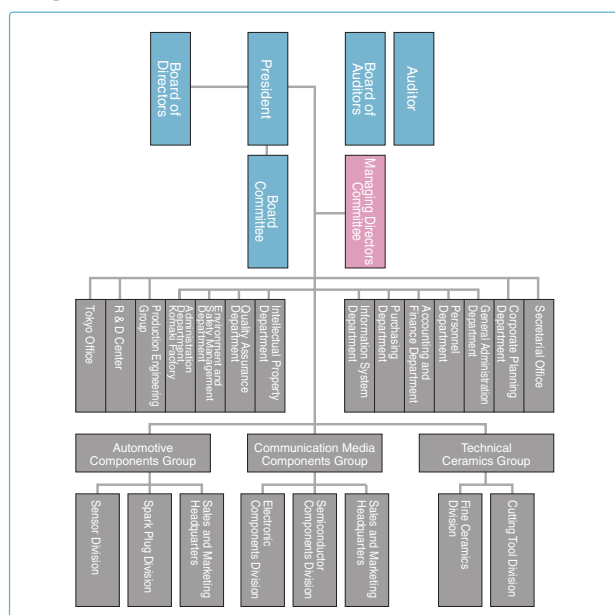
Ever onward! Always mindful of what is the best course, we swiftly put it into action.

Slogan

With established trust and confidence inside and outside the corporate, we aim to contribute to the peoples of the world by creating and putting at their disposal new values for the future.

Adopted in November 1996

Organization



Corporate code of conduct

At NGK Spark Plug Co., Ltd., in order to make the corporate philosophy expressed in our slogan, "With established trust and confidence inside and outside the company, we aim to contribute to the peoples of the world by creating and putting at their disposal new values for the future" an everyday reality, we undertake to conduct ourselves in a socially responsible manner in accordance with the following 10 principles.

We shall respect human rights and observe both the spirit as well as the letter of all laws and regulations applicable to our activities throughout the world.

Compliance

1

We shall develop and provide socially beneficial and safe goods and services by making full use of the most suitable technologies and our accumulated experience and shall strive to earn the confidence of our consumers and customers, while taking necessary measures to protect personal data and customer-related information.

Consumers and clients

2

We shall promote fair, transparent, free competition and sound trade. We shall also ensure that our relationships and contacts with government agencies and political bodies are of a sound and proper nature.

Fair dealing

3

Emphasizing communication not only with our shareholders but also with members of society at large, we shall engage in active and fair disclosure of corporate information through ongoing corporate communications.

Communication

4

Recognizing that a positive involvement in environmental issues is a priority for all humanity and an essential aspect of our activities and a prerequisite for our very existence as a company, we shall approach these issues voluntarily, proactively, and speedily.

Environmental conservation

5

As a good corporate citizen, we shall actively engage in philanthropic activities and other activities of benefit to society.

Social contribution

6

We shall strive to respect the diversity and individuality of our employees and foster a safe and excellent working environment where they can realize their full potential.

Employees

7

We shall reject all contacts with organizations involved in activities in violation of the law or accepted standards of responsible social behavior.

Civil society

8

We shall respect the cultures and the customs of local communities where we do business and strive to manage our activities throughout the world in such a way as to promote and contribute to the development of local communities.

Cultural respect

9

Management shall exercise leadership in making the letter and spirit of the Code of Conduct integral to everyday business practice, thoroughly implementing the Code of Conduct throughout the Company and inculcating it throughout the Group and its supply chain. To this end, management shall continually improve internal systems while striving to cultivate ethics.

Ethics

10

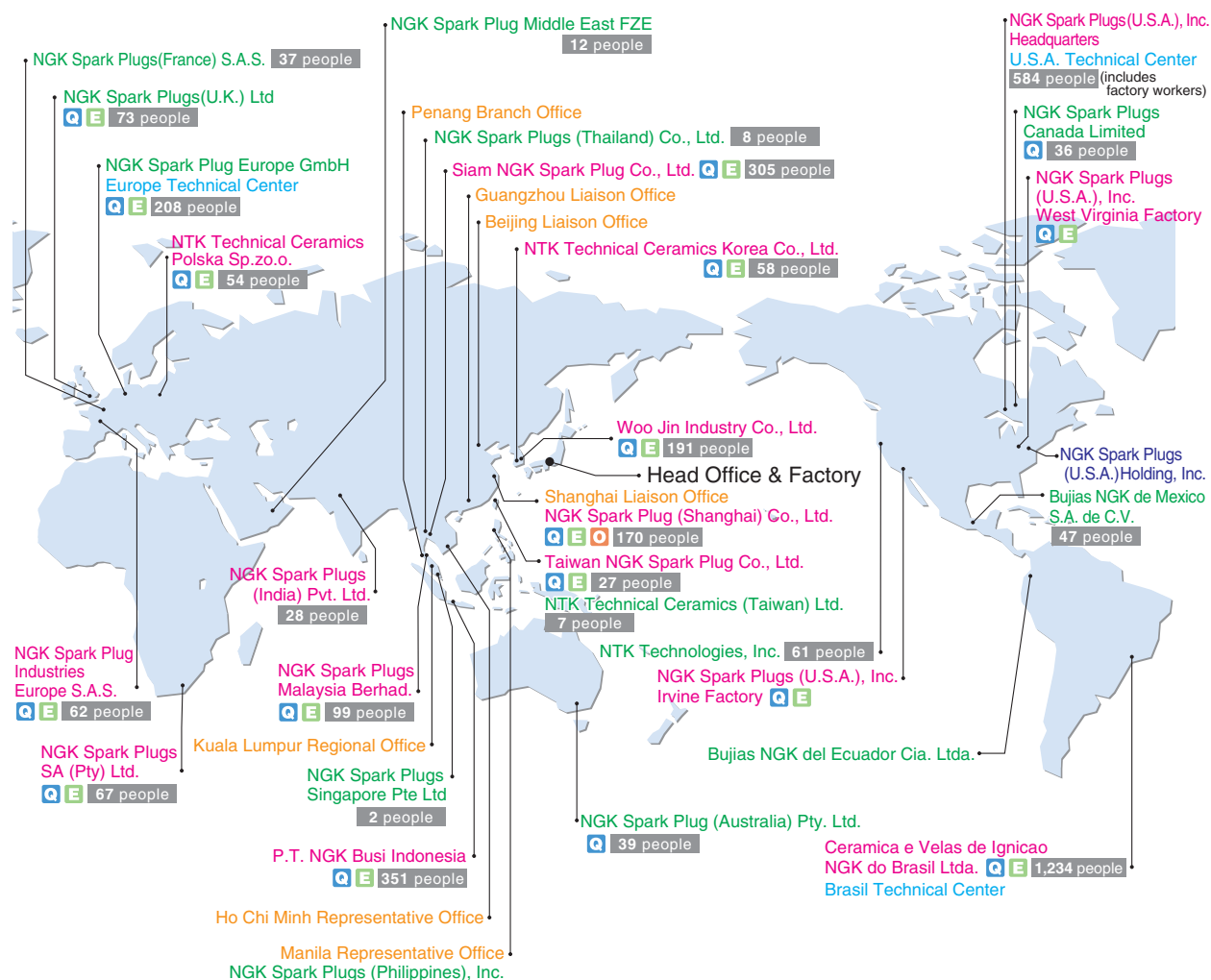
Revised November 2004

Compliance

We shall respect human rights and observe both the spirit as well as the letter of all laws and regulations applicable to our activities throughout the world.

- NGK Spark Plug Group is a global corporation with an export ratio of 80% and production and sales organizations worldwide. To maintain the trust of international society, we will “respect human rights and abide by all laws and international rules as well as the spirit of the law, whether in Japan or overseas,” namely the respect of human rights and compliance, as the basis of our actions.
- To earn respect and popularity from the people of the world, each employee of our group will behave in accordance with our code of conduct and with social decency.

Overseas Network



Overseas Network

- Head Office & Factory
- Liaison Offices
- Manufacturing & Sales Organizations
- Sales Organizations
- Technical Centers
- Holding Companies

QMS (ISO 9001, TS 16949, etc.) certified

EMS (ISO 14001) certified

OSHMS (OHSAS18001) certified

people - Number of employees

QMS/EMS certification status as of the end of May 2008

Number of employees as of the end of December 2007



NGK CUP



Bujias NGK de Mexico S.A. de C.V.



Miyanajo Factory



P.T. NGK Busi Indonesia



Tokyo Sales Office

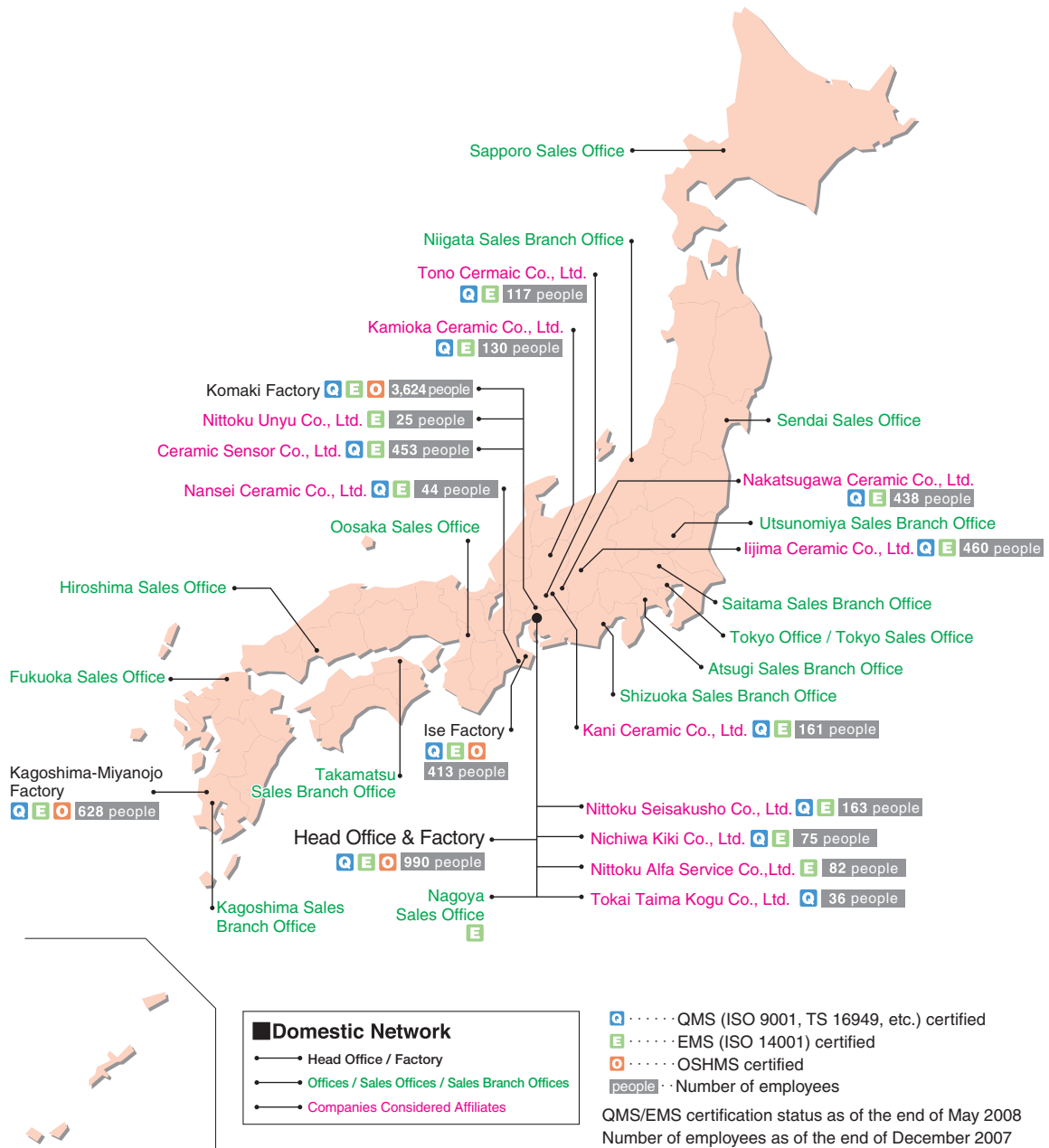


NGK Spark Plugs SA (Pty) Ltd.



NGK Spark Plugs (U.S.A.), Inc.

Domestic Network



Consumers and clients

We shall develop and provide socially beneficial and safe goods and services by making full use of the most suitable technologies and our accumulated experience and shall strive to earn the confidence of our consumers and customers, while taking necessary measures to protect personal data and customer-related information.

- The corporate philosophy (commitment) of NGK Spark Plug Group declares, "With full use of the most suitable technology and our accumulated experience, we continue striving to offer new values to the peoples of the world".
- To put this philosophy into practice, we will develop and manufacture innovative products to satisfy the demands of various customers and achieve our mission of providing products with the same level of safety and quality from any production site in the world.
- From this fundamental standpoint, we will provide accurate and appropriate information on our products and services and handle and protect individual data and customer data related to our business activities in a proper manner.

Quality Management System

Since our establishment in 1936 our basic stance and philosophy have been maintained coherently to the present as the "Nittoku quality mind" including the "good product principle," "total involvement," and "worksite principle."

The corporate quality policy, which was established in February 2006, reflects the "Nittoku quality mind," revolving around TQM (Total Quality Management) demonstrating initiative for high quality production.

The following activities implement the core of the TQM activities:

- Top down activities embodying company management through policy management.
- Workplace activation and human resource development through small group quality and business improvement and other activities.
- Business standardization and maintenance management as well as improvement activities determined at each workplace by daily management.

To successfully implement these measures we are undertaking accreditation and are working hard to effectively operate our quality management system in conformance with the ISO9000 series and ISO/TS16949 standards.



Quality lecture meeting



Quality exhibition

Corporate Quality Policy

We continue to supply Quality Products to the society with emphasis on "Customer First", "Total Involvement" and "Continuous Improvement".

●Customer First

Our customers determine the quality of our products and services. In order to provide products and services that satisfy our customers, we strive to understand their continuously changing needs from their point of view, and make proposals exceeding their expectations according to the philosophy of "quality first".

●Total Involvement

People are fundamental elements of a company and the most important management resource. While respecting the individuality of employees and enhancing each one's ability, autonomy and creativity, we pool our abilities to solve problems and overcome the tasks we face fully engaging our individual roles with a shared understanding of the problem space.

●Continuous Improvement

The development of a company requires swift and suitable responses to the changing social environment, market conditions and customer demands. For this purpose, we are continuously improving the effectiveness and efficiency of all management resources including our organization, system, processes, products and services.

Small Group Activities

We are developing QC (quality control) small group activities to continuously improve our handling of workplace issues with the goal of increased quality and productivity.

Every year we host a central exhibition to show off the results of these daily activities and we are looking for increased workplace teamwork and human resources development.



Central exhibition

The employees themselves are the driving force behind the future growth of the NGK Spark Plug Group. Based on this understanding, the employees increase their knowledge and technical abilities through improvement activities. In order to work together well we engage the following basic stances in our human resource development:

- 1) Demonstrate human ability to create unlimited potential
- 2) Respect humanity to create a lively, friendly workplace
- 3) Contribute to improving and developing the company character

Crisis Management

Business activities involve a variety of risks such as natural disasters, serious accidents, and economic downturns. We continuously strive to prevent these risks, but at the same time we make preparations to appropriately respond in the event that an unforeseen situation occurs.



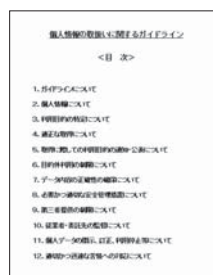
Evacuation drill

Action for a major earthquake

The NGK Spark Plug Group has many factories and offices in the Tokai region centered on Aichi prefecture. Much of this region is designated as an area in which intensified measures must be taken against an earthquake disaster in the event of a Tokai earthquake. To this end, we have prepared an earthquake countermeasure manual, and take steps to minimize damage to our business activities. Also, we implement a safety confirmation system in order to quickly obtain a grasp of information concerning the safety of our employees.

Protection of Personal Information

Regarding personal information that has been entrusted to us by our customers, we observe the Personal Information Protection Law and other related ordinances, and strive to appropriately protect, control and handle information. We notify our customers of our personal data protection policy on our website.



<http://www.ngkntk.co.jp/english/privacy.html>

Disclosure of Product Information

To inform our customers of the products and the latest technology of the NGK Spark Plug Group, we make presentations at various exhibitions. In fiscal year 2007 as well, we received many visitors at these exhibitions and were able to respond to their questions and requests. Information concerning our products and technologies is provided on our website and in our catalogs.



2007 Automotive Engineering Exposition



SEMICON Japan 2007

NGK Spark Plugs Plug Studio

There are many different spark plug part numbers, and the type and the necessary quantity differ depending upon the model of the vehicle in which the plug is used. At the Plug Studio, we offer an adaptive search function for spark plugs, plug cords, and power cables, enabling customers to replace their own plugs. The Plug Studio also provides information concerning presentation events and motor sports.



<http://www.ngk-sparkplugs.jp/english/index.html>

Fair dealing

**We shall promote fair, transparent, free competition and sound trade.
We shall also ensure that our relationships and contacts with government agencies and political bodies are of a sound and proper nature.**

- We believe that a business environment based on the rules of “fair, transparent and free competition” both in Japan and overseas is the key for NGK Spark Plug Group and its products to gain the trust of worldwide consumers and customers. NGK Spark Plug Group will also proactively develop such “fair, transparent and free competition”.
- It is important to establish healthy partnerships with our consistent suppliers who are vital for our business activities, and we will therefore build mutual trust with a long-term perspective and carry out proper purchasing transactions.
- To achieve optimal procurement worldwide, NGK Spark Plug Group will perform transactions based on fairness, transparency, free competition and rationality on the international stage, too. We will also maintain transparent relations with governments and public administrations and avoid actions which may raise doubts of collusion, etc.

Together with Our Suppliers

The procurement of raw materials, parts, and so on, has various risks concerning not only quality but also the observance of ordinances, environmental measures, information security, and so on. In order to reduce these risks, it is absolutely essential to have a relationship of trust with the supplier as a sound partner. At the corporate policy presentation held in April 2007, we explained our corporate policy and requested the continuation of our good relationships.

Nittoku Suppliers Associations

The Nittoku Suppliers Association is composed of suppliers who deliver raw materials, equipment, parts, and so on, to the NGK Spark Plug Group. Hosting various kinds of presentations and improvement example exhibitions, its purpose is to promote efficient management and improve productivity through the exchange of information between members. We at the NGK Spark Plug Group would like to develop, together with our important quality partners, our clients, to create better quality products. In order to accomplish this we invite the participation of our clients in our highly important and active internal training to give support to their human resource development.



Corporate policy presentation



Session for presenting examples of improvement

Column SRI (Socially Responsible Investment)

SRI is a method of investment where the companies invested in are determined based on a comprehensive evaluation that takes into account not only profitability and growth expectation but also social and environmental aspects such as legal compliance, employment, human rights, and contribution to society and the community. The NGK Spark Plug Group is continuing to work to grow to new levels with the goal of being a trustworthy company.

In 2008 the FTSE4Good index series continued to list our company. The FTSE group developed and manages the FTSE4Good index series, which evaluates responsible investments. Companies listed are evaluated against criteria regarding aspects such as environment, human rights, supply chain labor standards, prevention of corruption, and climate change.

Communication

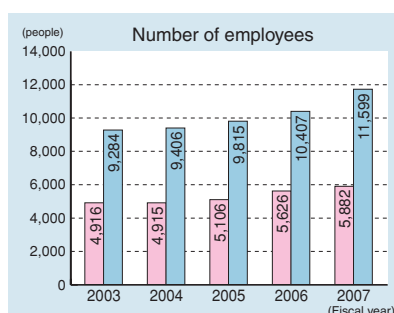
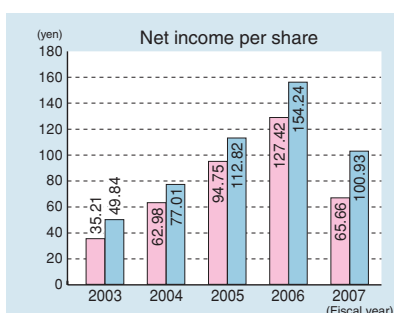
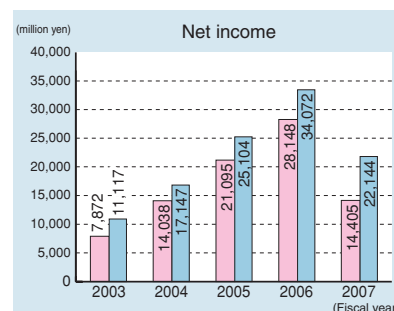
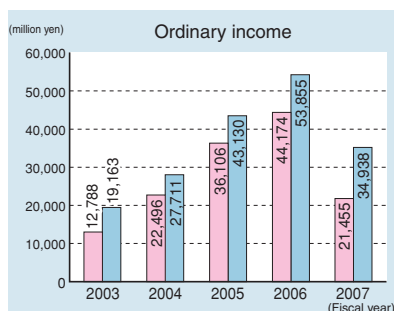
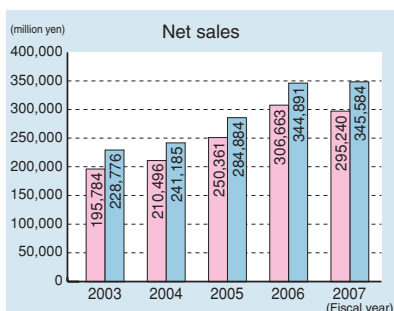
Emphasizing communication not only with our shareholders but also with members of society at large, we shall engage in active and fair disclosure of corporate information through ongoing corporate communications.

- To enhance our credibility in Japan and overseas, we seek to practice “transparent management” by disclosing information on our business and financial performance as well as other everyday actions, including environmental activities, via our website and other media.
- In order to respond to the trust of our stakeholders in the capital market, such as our shareholders and investors, we endeavor to increase our market value and provide information on our management, including our growth strategy, through IR activities in a timely and proper way.
- We are aware of our social responsibility not only to our shareholders but to a wide range of other stakeholders such as customers, suppliers, employees and local residents, and will therefore deepen mutual understanding by strengthening our PR and communication channels and promoting interactive communication.

Financial Data

	Non-consolidated	Consolidated
Net sales (million yen)	295,240	345,584
Ordinary income (million yen)	21,455	34,938
Net income (million yen)	14,405	22,144
Net income per share (yen)	65.66	100.93
Number of employees (people)*	5,882	11,599

*Number of employees as of March 2008



■ : Non-consolidated
■ : Consolidated

IR Activities

The NGK Spark Plug Group provides business information such as business content, performance and stock prices to shareholders and investors, and also holds IR events to directly answer their questions. In fiscal 2007, participated in the Nagoya Stock Exchange IR Expo, and received enthusiastic comments and questions from personal investors. We also periodically hold presentations for analysts and institutional investors in Japan, and give explanations to overseas investors as well.



Nagoya Stock Exchange IR Expo 2007



Institutional investor factory tour

Environmental conservation

Recognizing that a positive involvement in environmental issues is a priority for all humanity and an essential aspect of our activities and a prerequisite for our very existence as a company, we shall approach these issues voluntarily, proactively, and speedily.

- To contribute to the battle against global warming and the establishment of a recycling-oriented society, we are committed to measures such as energy saving, zero waste discharge, recycling and enhanced chemical control.
- For the simultaneous pursuit of environmental conservation and economic growth, we will strive to reduce environmental impact and risk in all business activities through the improvement of productivity, enhancement of resource and energy efficiency, and development and use of alternative substances. We also aim to develop, introduce and disseminate innovative technologies, products/services and business models that can contribute to solutions for environmental problems.
- We will proactively deal with environmental issues, based on our corporate philosophy (or action guidelines): "Ever onward! Always mindful of what is the best course, we swiftly put it into action."

Environmental Declaration (revised April 2004)

NGK Spark Plug Group will strive for harmony with society and the global environment while serving the people of the world, offering new value based on the principle of high quality throughout the entire life cycle of our environmentally friendly NGK spark plugs and NTK new ceramic products.

To achieve this, we have formulated an environmental action plan based on our environmental policy as a way of accepting our social role and responsibility as a trusted corporation. With the participation of everyone concerned, we will pursue the development of a sustainable society and business operations.

Environmental Policy (revised April 2004)



We will abide by all laws, regulations, protocols and voluntary standards relating to environmental conservation. We also aim to increase our environmental efficiency by continually trying to enhance our environmental management system (EMS) and performance.



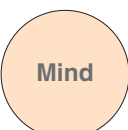
We will remain constantly aware of the need for environmental harmony, working to prevent air, earth and water pollution, use energy and resources more effectively, and reduce waste materials.



We will work towards the development, design, procurement, manufacture, sale, distribution and disposal of environmentally friendly products.



We will promote communication with stakeholders through clear disclosure of information. We will also contribute not only to local communities but to the wider society through consideration for the natural environment as well as participation and support for environmental conservation activities.



We will strive to raise awareness of environmental conservation through environmental education and publicity activities as well as the dissemination of these policies among all our employees. We will also seek the understanding and cooperation of our business associates.

Environmental Action Plan and NGK Spark Plug

	Item	Eco Vision 2010
Management	Environmental Management System	Sharing of environmental policy by related companies including overseas
		Construction of total management system (QMS, EMS, OSHMS)
	Environmental operations	Centralization of environmental management data control
		Promotion of CSR management
	Environmental accounting	Integration of environmental accounting and management accounting
Factory/Office	Prevention of global warming	Total greenhouse gas emissions in Japan of 150,000 tons or less * (10% down on 2001)
	Effective use of resources	Efficient use of water resources
		EPR (extended producer responsibility) operations
		Achievement of zero emissions by related companies including overseas
		Reduction of waste emissions
		Reduced environmental load due to waste
Products		Total 36 tons of PRTR released(80% down on 2002)
	Hazardous substances	Control of environmental pollutants
	Eco-design	Eco-friendly design and product creation
	Green procurement	Green supplier system of identification and registration of all our business associates
	Distribution	Construction of efficient distribution system
Communication	Eco-business	Development of eco-business
	Disclosure	Disclosure of clear environmental data
		Continuous issue of CSR reports
Mind	Community	Support for and participation in NGO and NPO activities
	Natural environment	Promotion of nature conservation and social contribution
	Education and instruction	Thorough education of eco-minded employees
		Reflection of environmental performance in business evaluation

*Energy source carbon dioxide (offices and factories)

Philosophy of Reduction Targets

Our target reduction values for CO₂, water, and emissions are set based on our experience implementing energy saving measures, recommendations and so on since 2006.

We have used emission volume as the base unit for CO₂ and emissions, and usage volume as the base unit for water with the goal of curbing overall volumes. In promoting reduction of total volume, we faced a problem that it became difficult to understand the effect of efforts to reduce energy and resources used because the changing production volume and

other factors greatly affect the goals with the base units of emission and usage volume that we had been using. To address this issue we now express our goals as “reduction volumes” that accumulate reduction effects of each individual measure, allowing us to manage progress and evaluate the appropriateness and efficacy of various activities. By managing reduction volume through reduction goals and promotion activities we seek to reduce overall volume and improve the base units of measurement.

Group Eco Vision 2010

○ : Achieved × : Not achieved △ : Ongoing

Fiscal 2007 target		Results	Page	Fiscal 2008 target	
Support ISO14001 certification of overseas manufacturing and sales organizations		○	15	Support ISO14001 certification of all overseas manufacturing and sales organizations	
Develop NGK Spark Plugs' global environmental declaration and environmental policies		○	15	—	
—		—	—	Research EMS structures in domestic business sites	
Examine EMS management categorized by business department		×	—	—	
Investigate the joint sharing of goals with QMS		×	—	—	
Offer assistance in the introduction of risk assessment for domestic affiliates		○	—	Research combining systems with OSHMS	
Work to revise and improvement the collection and managerial methods of environmental data for operating organizations		×	—	Work to revise and improvement the collection and managerial methods of environmental data for operating organizations	
Start operating a system of collecting environmental data from overseas office		○	—	Collect data from the NGK global network	
Establish NGK Spark Plugs' environment related standards		○	—	—	
Continue to handle environmental accounting procedures and reporting		○	17	Continue to handle environmental accounting procedures and reporting	
—		—	—	Use environmental accounting as an evaluation item for our methods	
Develop and implement GHG reduction program		○	19	Research the need to secure CO ₂ credits	
Reduction targets : NGK Spark Plug : 4,110 tons Affiliated companies : 1,590 tons		○	19	Reduction targets : NGK Spark Plug : 13,866 tons Affiliated companies : 1,585 tons	
Reduction targets : NGK Spark Plug : 73,000 m ³ Affiliated companies : 11,000 m ³		○	22	Reduction targets : NGK Spark Plug : 87,738 m ³ Affiliated companies : 8,093 m ³	
Establish methods for recycling used products		△	—	Establish methods for recycling used products	
Continue to work with data on waste materials and valuables		○	—	—	
Reduction targets : NGK Spark Plug : 3,490 tons Affiliated companies : 110 tons		○	21	Reduction targets : NGK Spark Plug : 7,330 tons Affiliated companies : 53 tons	
Examine changes that can be made to processing methods that ensure a lessening of waste in recycling		△	—	Examine changes that can be made to processing methods that ensure a lessening of waste in recycling	
Investigate the introduction of electronic manifestos		○	—	—	
Complete HCFC-225 substitution		△	23	Complete HCFC-225 substitution	
Reduce VOC released		△	23	Reduce VOC released	
Carry out uniform control with MSDS		△	—	Carry out uniform control with MSDS	
Revise hazard rankings		○	27	—	
—		—	—	Strengthen environmental risk (environmental accident) readiness	
Offer the addition of LCA methods for product assessment		△	—	Offer the addition of LCA methods for product assessment	
300 companies (expand toward mainly raw material and parts manufacture)		○	28	500 companies (expand toward equipment, tool, and auxiliary material manufacturers)	
Provide a thorough and efficient distribution system that works with the Law concerning the rational use of energy for all cargo owners		○	20	Transport with waste efficiency	
Investigate and analyze environmental duties involved in the profitable operation of business firms		△	—	Research the establishment of laws about analyzing ELV materials and other green procurement related material analysis laws	
Continue to release environmental news items and topics on Internet		○	—	Differentiate web and printed matter with regards to information disclosure	
Issue Environmental & Social Report		○	29	Issue Environmental & Social Report	
Support and participate in NGO and NPO activities		×	—	Support and participate in NGO and NPO activities	
Continue to participate in community environmental events, etc.		○	29	Continue to participate in community environmental events, etc.	
Revise environmental education programs		△	30	Develop and implement an environmental education system for the Group	
—		—	—	Create a system for implementing environmental education for all employees	
—		—	—	—	

Environmental load from business activities

Material Balance

The first step in performing environmental protection activities is to know what kind of load one's activities impose on the environment. The tables below show the amount of resources and energy used in the business activities of the

NGK Spark Plug Group (input) and the products, waste and so on created as a result of these activities (output).

Input

Energy

Purchased electric power, Gas, Heavy oil A : Quantity used at offices and factories
Gasoline : Quantity used during testing and transportation
LPG, Diesel oil : Amount used at offices and factories, and during testing and transportation

Classification	Non-consolidated	NGK Spark Plug Group
Purchased electricity	265.75 GWh	396.94 GWh
Gas	16.97 million m ³	17.95 million m ³
LPG	4,819 tons	10,610 tons
Heavy oil A	57 kL	57 kL
Gasoline	747 kL	769 kL
Diesel oil	47 kL	130 kL

Paper

Paper : Quantity of copy paper and wrapping paper used (estimated)

Classification	Non-consolidated	NGK Spark Plug Group
Paper	2,751 tons	3,450 tons

Water

Tap water : Quantity of service water and industrial water used
Well water : Quantity of underground water used
Recycled water : Quantity of water reused after being purified on the premises

Classification	Non-consolidated	NGK Spark Plug Group
Tap water	1,057,240 m ³	1,276,028 m ³
Well water	843,530 m ³	962,834 m ³
Recycled water	1,444,680 m ³	1,595,031 m ³

Main raw materials

Ceramic materials, Metal materials : Purchased quantities
Reused elements : Quantity of reused ceramic material

Classification	Non-consolidated	NGK Spark Plug Group
Ceramic materials	—	15,842 tons
Metal materials	—	23,523 tons
Reused elements	9,279 tons	14,841 tons

Other materials and auxiliary materials

Plastic materials, chemical materials, oils, other materials, other gases : Quantity used by each department (estimated)

Classification	Non-consolidated	NGK Spark Plug Group
Plastic materials	671 tons	2,498 tons
Chemical materials	11,294 tons	14,176 tons
Oils	312 tons	375 tons
Other materials	1,571 tons	1,890 tons
Other gases	13,951 tons	17,827 tons

Domestic business sites

Input

Type	Classification	Domestic business sites
Energy	Purchased electricity	423,999 kWh
	Gas	6,186 m ³
	LPG	59 kg
	Gasoline	144 kL
Paper	Copy paper	5.7 tons
Water	Tap water	2,963 m ³

Output

Type	Classification	Domestic business sites
CO ₂ from energy consumption	Office	156 tons
	Transportation	334 tons
Waste	Recycled waste	8.3 tons
	Landfill/incineration	3.7 tons
Wastewater	Wastewater	2,963 m ³

Output

CO₂ from energy consumption

Offices, factories, testing, transportation
Emission of CO₂ generated by the use of electricity, gas, and so on

Classification	Non-consolidated	NGK Spark Plug Group
Offices and factories	145,713 tons	208,927 tons
Testing	1,621 tons	1,621 tons
Transportation	289 tons	559 tons

PRTR law-regulated substances

Atmosphere, water area

Quantity of matter released to atmosphere and the water area, concerning which notification is made in each region

Classification	Non-consolidated	NGK Spark Plug Group
Atmosphere	19.6 tons	212.6 tons
Water area	0.6 tons	0.6 tons

Waste

Recycling

Quantity of matter that is consigned to be recycled (including items sold)

Buried or incineration

Quantity consigned to be buried or incineration

Classification	Non-consolidated	NGK Spark Plug Group
Recycling	25,909 tons	28,689 tons
Buried or incineration	143 tons	166 tons

Wastewater

Wastewater

Sewage, Quantity of water discharged to the public water area

Classification	Non-consolidated	NGK Spark Plug Group
Wastewater	1,271,360 m ³	1,568,442 m ³

Wrapping/packaging materials

Plastics, Paper, cardboard

Quantity used by each shipping department (estimated)

Classification	Non-consolidated	NGK Spark Plug Group
Plastics	1,144 tons	1,408 tons
Paper	1,551 tons	1,799 tons
Cardboard	1,144 tons	1,555 tons

Product shipment

Product

Quantity of shipped products as cargo owner *1

Classification	Non-consolidated	NGK Spark Plug Group
Product	—	51,223 tons

*1 The counting method was changed in fiscal 2006.

Factors used to calculate CO₂

	CO ₂ conversion factor
Purchased electricity	0.33 kg-CO ₂ /kWh
Gas	2.558 kg-CO ₂ /m ³
LPG	3.007 kg-CO ₂ /kg
Heavy oil A	2.712 kg-CO ₂ /L

Japan Auto Parts Industries Association (2001)

	CO ₂ conversion factor
Gasoline	2.32 kg-CO ₂ /L
Diesel oil	2.62 kg-CO ₂ /L

Ordinance regarding calculation of emission volume of greenhouse gas emissions resulting from the business activities of designated emitters.

* Not including energy consumption and CO₂ emissions due to transportation outsourcing.

* For some operation sites that have no installations to measure the volume of water discharged, the wastewater volume is taken as the combined volume of tap water and well water.

Management

Environmental Management System

The NGK Spark Plug Group has constructed an environmental management system (hereafter called EMS) based on ISO14001 to promote a common understanding of our environmental protection activities. Acquisition of ISO14001 certification started in 1999 with the Head Office Factory. This was followed by the combined acquisition by four factories and 11 consolidated companies in Japan by January 2004. Furthermore we are advancing acquisition of ISO14001 in our overseas affiliated companies that contribute to our totals as

well, and as of April 2008 fourteen companies have received certification.

In fiscal 2007, to achieve unified understanding of environmental activities across NGK globally we developed a global environmental declaration and environmental policy, instituting action criteria related to the environment. We continue working for the promotion of environmental protection including our overseas operations.

Acquisition of ISO 14001 certification

	Name of factories and companies	Timing of certification	Certification organization
NGK Spark Plug Co., Ltd.	1 Head office/factory	'99.8	TÜV Rheinland Japan Ltd.
	2 Komaki Factory	'00.12	
	3 Miyanojo Factory	'00.12	
	4 Ise Factory	'00.12	
Domestic	5 Nittoku Alfa Service Co.,Ltd.	'99.8	
	6 Nittoku Unyu Co.,Ltd.	'00.12	
	7 Ceramic Sensor Co.,Ltd.	'00.12	
	8 Iijima Ceramic Co.,Ltd.	'02.12	
	9 Nakatsugawa Ceramic Co.,Ltd.	'02.12	
	10 Kani Ceramic Co.,Ltd.	'02.12	
	11 Nansei Ceramic Co.,Ltd.	'02.12	
	12 Kamioka Ceramic Co.,Ltd.	'04.1	
	13 Nittoku Seisakusho Co.,Ltd.	'04.1	
	14 Nichiwa Kiki Co.,Ltd.	'04.1	
	15 Tono Ceramic Co.,Ltd.	'04.1	

	Name of factories and companies	Timing of certification	Certification organization
Overseas	16 NGK Spark Plug Industries Europe S.A.S.	'00.5	AFAQ
	17 NGK Spark Plugs (U.S.A.),Inc. WV Factory	'00.7	TUV Rheinland of North America, Inc.
	18 NGK Spark Plugs (U.S.A.),Inc. IRV Factory	'01.8	BSI (British Standard Institute)
	19 NGK Spark Plugs (U.K.) Ltd.	'01.12	BSI (British Standard Institute)
	20 Ceramica e Velas de Ignicao NGK do Brazil Ltda.	'01.12	ABS Quality Evaluations
	21 Siam NGK Spark Plug Co.,Ltd.	'02.11	RWTÜV Thailand Ltd.
	22 NGK Spark Plug Europe GmbH	'04.11	TÜV Industrie Service GmbH
	23 Woo Jin Industry Co.,Ltd.	'05.4	kfq (Korean Foundation for Quality)
	24 NGK Spark Plugs Malaysia Berhad.	'06.3	SIRIM QAS
	25 Taiwan NGK Spark Plug Co.,Ltd.	'06.4	SGS
	26 NTK Technical Ceramics Korea Co.,Ltd.	'06.4	ISC(International Standard Certification)
	27 NGK Spark Plug (Shanghai) Co.,Ltd.	'07.4	SGS
	28 P.T. NGK Busi Indonesia	'07.10	Bureau Veritas Certification
	29 NTK Technical Ceramics Polska Sp.z o.o.	'08.1	DEKRA Certification GmbH
	30 NGK Spark Plugs SA (Pty) Ltd.	'08.4	Bureau Veritas Certification

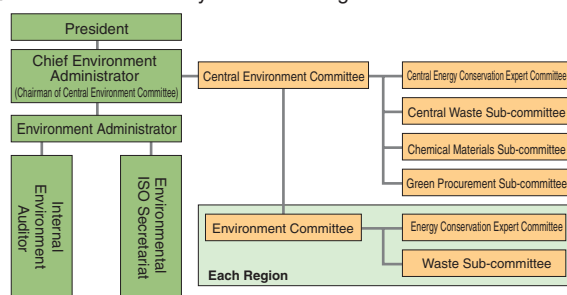
System Operation

The NGK Spark Plug Group is constructing an EMS that forms a foundation for total participation throughout the group and in each location.

We are continuously improving in connection with the establishment of a central environmental committee, which is headed by the person responsible for environmental unification, and local environmental committees, as well as verifying the conditions and issues with progress towards the achievement of our targets and goals. In our annual internal environmental auditing we ensure the operation and regulation of our system and our conformance with our self-imposed criteria.

In this way we are looking for ongoing improvement through the PDCA (Plan-Do-Check-Action) cycle in our Group and in each region.

Environmental Activity Promotion Organization

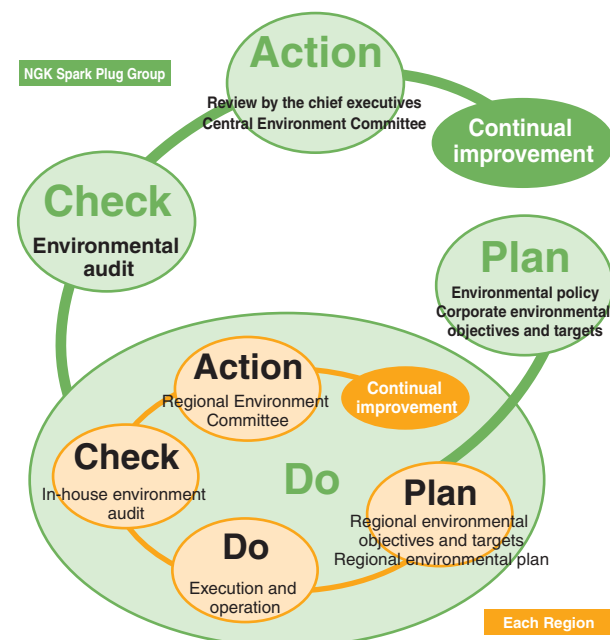


For the definition of each region, refer to p.2.

Number of ISO14001 auditors

(people)

	NGK Spark Plug Co., Ltd.	Affiliates
ISO14001 assistant examiners	5	1
ISO14001 internal auditors	388	193



Central Environment Committee



ISO External Auditing

Environmental Risk

Business activities have a certain amount of risk within them. The NGK Spark Plug Group is working towards specific and appropriate management of environmental risk, with the goal of preventing environmental pollution. We have entered into pollution prevention agreements with local governments for atmospheric and water pollution and have established self-imposed criteria above and beyond the requirements of legal regulation. Furthermore, we are working proactively to prevent the occurrence of accidents or emergencies that could lead to environmental damage.

Asbestos response

We are aware of the high risk posed by the problem of asbestos and its dangerous effects to the health of people in contact with it. We took appropriate disposal measures to prevent damage due to asbestos, completing removal of asbestos from our production facilities and making progress towards appropriate disposal in buildings where asbestos was employed as a fire retardant.

Drills for emergency situations

We regularly implement drills to prevent environmental damage beyond the company making ourselves ready for any emergency situations, whether caused by natural disaster or human error.



Drills for emergency situations

Soil survey

We implement soil surveys based on our procedures when disposing of regulated equipment or when changing the soil on the factory premises.

In fiscal 2007 we purchased land in the industrial park in Kani, Gifu, but before possessing the land we ensured the soil had no damage or abnormalities. We will continue to strive for proper management of the soil and prevention of pollution.

PCB control

The Head Office Factory, Komaki Factory and Nittoku Seisakusho, store waste materials containing PCBs. We carry out stringent control of such materials based on the Law concerning Special Measures for Promotion of Proper Treatment of PCB Wastes until the day that they can be properly disposed of.

*PCB : Poly Chlorinated Biphenyls



PCB storage

Chemical leak prevention

At our company we have coating and other processes that use highly dangerous toxic chemicals. The storage tanks and pipes for these chemicals and used waste fluids are installed underground; there is risk of soil pollution because of chemical leakage should they be damaged due to aging or an earthquake. To reduce this risk we are layering the storage tanks and moving this equipment above the ground.

Compliance

It is absolutely essential to observe the environmental laws and regulations in order to maintain business activities. We verify our compliance with legal regulations and so on based on our model of the ISO14001 system and daily work proactively to prevent the occurrence of legal violations or

■ NGK Spark Plug Co., Ltd. (cases)			
	2005	2006	2007
Violations	1	0	0
Complaints	0	0	2

Measures taken for complaints in fiscal 2007

- ① There was a request to improve bad smells originating from the main office and factory. This was caused by gas escaping from deteriorated pipe connections. We implemented measures including changing to connection methods that will not degrade.
- ② There was a request to improve the noise generated at the Komaki factory. The noise was originating from nitrogen tanks. We implemented measures to prevent reoccurrence including installing a silencer to reduce noise.

complaints. In fiscal 2007 there were two cases of legal violation and two cases of complaint. In these cases we have taken steps to prevent reoccurrence.

■ Affiliates (cases)			
	2005	2006	2007
Violations	1	3	2
Complaints	0	1	0

Measures taken for violations in fiscal 2007

- ① Kani Ceramic Co., Ltd. was producing noise beyond regulated levels. By installing sound prevention walls and other measures the external noise was controlled and brought to within regulated range.
- ② Ceramic Sensor Co., Ltd. temporarily exceeded values regulated in the Water Pollution Prevention Law with too much fluorine in expelled water. We aim to prevent a reoccurrence by adjusting water routes and other changes to the treatment methods.



Sound prevention wall (Kani Ceramic)

Management

Environmental Accounting

In order to more efficiently promote environmental management, it is important to obtain a quantitative grasp of the cost and effectiveness of environmental protection. Since 1999, the NGK Spark Plug has been carrying out environmental accounting, and in 2003 its scope was increased to cover the entire Group.

The cost of environmental maintenance for fiscal 2007 was 11,007 million yen on a non-consolidated basis, and 11,631 million yen for the Group. This was an increase of approximately 11% compared to fiscal 2006. Also, the environmental protection effect was 485 million yen on a non-consolidated basis.

■ Environment preservation cost

(Unit : million yen)

Items			Non-consolidated				NGK Spark Plug Group*			
Classification	Major efforts		Investment		Expense		Investment		Expense	
			2006	2007	2006	2007	2006	2007	2006	2007
Costs within the business area	Pollution prevention cost	Air/water pollution prevention and noise reduction	121	517	1,136	1,610	148	527	1,352	1,836
	Global environmental conservation cost	Global warming prevention, energy conservation	72	17	405	424	195	107	449	484
	Resource circulation cost	Effective resource utilization, industrial waste treatment/disposal	47	54	484	552	56	62	685	713
Sub-total			240	588	2,025	2,585	398	697	2,487	3,033
Upstream & downstream cost		Recycling of products, etc., green purchase differences	0	0	2	4	0	0	2	4
Management activity cost		Employee environmental education, EMS construction and operation	10	8	287	293	11	8	354	354
R&D cost		R&D of products promoting environment preservation	1,386	1,473	5,632	5,853	1,386	1,473	5,632	5,853
Social activity cost		Nature protection, afforestation, environmental ads	0	0	165	183	0	0	175	189
Environment damage correction cost		Repair of soil contamination, disrupted nature	0	0	9	19	0	0	9	19
Other costs		—	0	0	1	1	0	0	1	1
Total			1,636	2,070	8,122	8,937	1,796	2,178	8,660	9,453

* Excluding Nittoku Alpha Service Co., Ltd. and Nittoku Unyu Co., Ltd.

■ Effect of environment conservation measures shown in yen (Unit: million yen)

Area of recognized effect		Non-consolidated
Revenue	Revenue generated from the recycling of waste generated in operations or used products	285
Cost saving	Energy cost saving achieved from energy conservation efforts	148
	Reduction of water expenses through water saving	13
	Waste disposal cost saving achieved by resource conservation and recycling efforts	40
Total		485

■ Calculation concept

The environment preservation cost is classified according to the guidelines of the Ministry of the Environment, and is calculated using a proportional division method according to rules drawn up by the Group, based on the direct equipment investments and costs.

■ Environmental conservation effect measurements

Classification		Non-consolidated			NGK Spark Plug Group		
Effect measured in the business area	Types of effect	2006	2007	Difference from the previous fiscal year	2006	2007	Difference from the previous fiscal year
Effect measured with respect to resource input into operations	Energy consumption						
	Purchased electricity (GWh)	238.93	265.75	26.82	364.06	396.94	32.88
	Gas (million m ³)	15.37	16.97	1.60	16.26	17.95	1.70
	LPG *1 (tons)	4,630	4,809	179	10,208	10,600	392
	Heavy oil A (kL)	1,302	57	-1,245	1,302	57	-1,245
	Water consumption						
	Tap water (m ³)	909,393	1,057,240	147,847	1,123,438	1,276,028	152,590
Effect measured with respect to environmental load and waste from business activities	Well water (m ³)	906,959	843,530	-63,429	1,039,221	962,834	-76,387
	Quantity of PRTR law-regulated substances handled (tons)	673	650	-22	1,031	975	-56
	CO ₂ emission from energy consumption (tons)	135,604	145,713	10,109	195,932	208,927	12,995
	Recycled plant wastewater *2 (tons)	1,307,581	1,444,680	137,099	1,447,466	1,595,031	147,565
	Waste						
	Effectively utilized mass (tons)	26,912	25,909	-1,003	29,681	28,689	-992
	Buried, incineration (tons)	129	143	14	157	166	9
	PRTR law-regulated substances released into air and water (tons)	14	20	6	215	213	-2

*1 The quantity of LPG used in transit is excluded in consideration of the relationship with the environment preservation cost.

*2 Definition of recycled plant wastewater: Recycled water is defined as water that is reused after treatment of waste water.

Environmental Management

Eco-efficiency (environmental effectiveness)

Increasing economic value while reducing the environmental load is connected to ongoing corporate development. NGK Spark Plug Group evaluates the quantity of CO₂ emission, the quantity of waste generated, and so on, as the environmental effectiveness, and is promoting environmental management. In fiscal 2007, not only did the carbon dioxide emission volume increase as a result of the operation of new factory but also the amount of added production value decreased resulting in decreased environmental effectiveness. As for waste products, the amount output decreased due to reduction efforts but a greater loss of added production value resulted in decreased environmental effectiveness.

Eco-efficiency

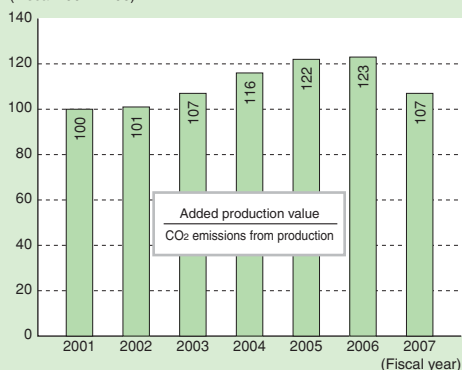
This is an indicator of the ratio of the created economy value to the environmental load accompanying business activities. The higher the value the better is the efficiency.

$$\text{Eco-efficiency} = \frac{\text{Added production value}}{\text{Environmental load}}$$

* The added production value is the amount left over after subtracting the cost of materials and subcontracting (including the cost of parts purchased from affiliates) from net sales.

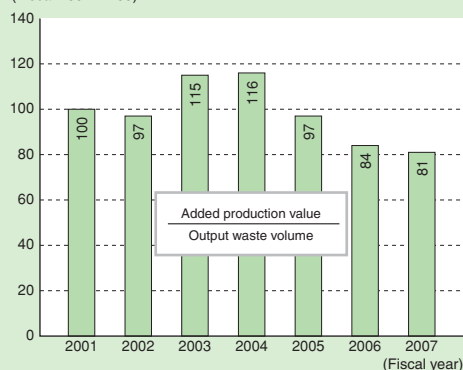
■ Index of CO₂ from production (non-consolidated)

(Fiscal 2001 = 100)



■ Index of output waste (non-consolidated)

(Fiscal 2001 = 100)



History of environment conservation

Feb. 1973	Safety and Environment Section (present Environment & Safety Management Dept.) was established. Safety and Health Committee and Antipollution Committee were established.
Mar. 1974	Antipollution agreement was concluded between Komaki Factory and Komaki City.
Apr. 1980	Antipollution agreement was concluded between Miyanojo Factory and Miyanojo Town Energy Conservation Expert Committee was established.
Nov. 1980	Miyanojo Factory introduced a closed wastewater treatment system to its plating plant.
Nov. 1993	Antipollution agreement was concluded between Ise Factory and Ise City.
Apr. 1994	Ise Factory introduced a closed wastewater treatment system to its plating plant.
Apr. 1999	Environment declaration was announced.
Jun. 1999	Reorganization of Antipollution Committee into Environment Committee. Environmental management system was reviewed and Energy Conservation Expert Committee was organized.
Aug. 1999	Head Office/Factory obtained ISO14001 certification.
Oct. 1999	Waste Sub-Committee, Green Procurement Sub-committee, and Chemical Materials Sub-committee were established.
Sep. 2000	The first edition of ECO report was issued.
Dec. 2000	Combined ISO14001 certification covering all the company's operation sites (Head Office/Factory, Komaki factory, Miyanojo factory and Ise factory)

Jun. 2001	The first environment convention was held.
Sep. 2002	Miyanojo Factory achieved zero emission.
Dec. 2002	Combined ISO14001 certification covering NGK Spark Plug and affiliates (Iijima Ceramic, Nakatsugawa Ceramic, Kani Ceramic and Nansei Ceramic)
May. 2003	Voluntary soil survey and soil improvement was performed on the company premises and reported to Nagoya City. Head Office/Factory and Komaki Factory achieved zero emission.
Sep. 2003	Ise Factory achieved zero emission.
Jan. 2004	Combined ISO14001 certification covering NGK Spark Plug and affiliates (Kamioka Ceramic, Nittoku Seisakusho, Nichiwa Kiki and Tono Ceramic)
Oct. 2004	Nittoku Seisakusho achieved zero emission.
Mar. 2005	Nansei Ceramic achieved zero emission.
Sep. 2005	Nichiwa Kiki achieved zero emission.
Dec. 2005	Received the Minister of Economy, Trade and Industry Prize at the 19th Chunichi Industrial Technology Awards. (Universal A/F heated exhaust gas oxygen sensor)
Jan. 2006	Received the Chairman Prize at the ECCJ's 16th Energy Conservation Grand Prize. (Oxygen concentrator for medical use)
Mar. 2006	Nakatsugawa Ceramic, Kani Ceramic and Kamioka Ceramic achieved zero emission.
Oct. 2006	Iijima Ceramic achieved zero emission.
Mar. 2007	Tono Ceramic achieved zero emission. (Achieved by all regions.)
Oct. 2007	Began operating the green supplier system

Factory/Office

Prevention of Global Warming

Basic philosophy



Tsuneo Ito, Director,
Chairman of the Central
Energy Conservation
Expert Committee

Global warming has become an important topic in the world today with the need to reduce greenhouse gas emissions growing ever more important.

At NGK Spark Plug Group we also believe reducing the volume of greenhouse gasses we emit is important and we have set goals for total output in our "Eco Vision 2010." In order to meet our goal for 2010 of Group total output volume of under

150,000 tons we need to take our internal cooperation to a new level and strive to our greatest limits to reduce CO₂ emissions.

Furthermore, as a global company with production hubs around the world we also calculate CO₂ emissions from our overseas production hubs to prevent global warming, which is, as its name suggests, a world wide issue, and promote energy saving measures including our overseas locations.



Energy savings activities

Results with respect to fiscal 2007 targets

In fiscal 2007 we worked with goals to implement measures that reduce CO₂ emissions at NGK Spark Plug Co., Ltd. by 4,110 tons and at affiliates by 1,590 tons for a total reduction of 5,700 tons. As a result of energy saving activities we

	Fiscal 2007 target	Fiscal 2007 results
NGK Spark Plug Co., Ltd.	4,110 tons	6,001 tons
Affiliates	1,590 tons	1,801 tons
Total	5,700 tons	7,802 tons

implemented reduction measures accounting for 7,802 tons, clearing our targets. In fiscal 2008 we continue to manage reduction goals, promoting implementation of energy saving measures.

Main countermeasure examples

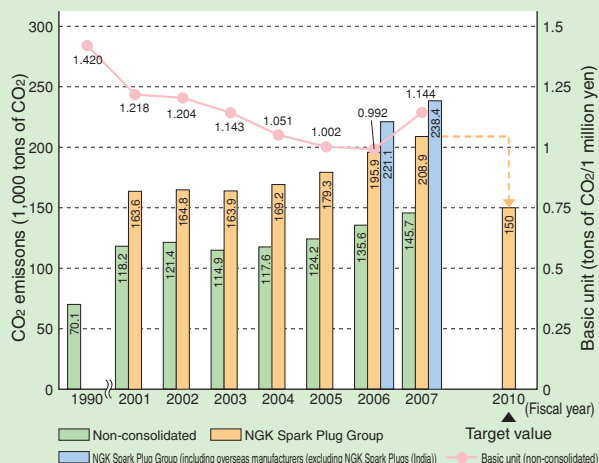
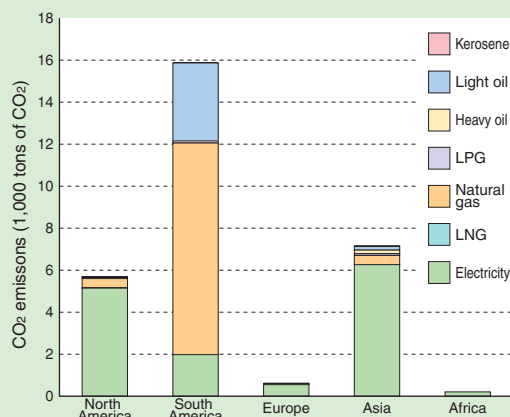
- Energy savings from use of waste heat in furnaces
- Energy savings from changes to furnace method (increasing number fired at a time)
- Energy savings from splitting compressor air supply into two

Total CO₂ emissions and Eco Vision 2010

The NGK Spark Plug Group has set goals for the reduction of total CO₂ emissions in Eco Vision 2010, and carries out activities aimed at achieving this. In fiscal 2007, due in part to opening a new factory, the amount of total CO₂ emissions increased, also resulting in per-unit increased emissions. Compared to the Kyoto Protocol base year of 1990, non-consolidated emissions are increased 108%. We are working towards the future: changing so we can monitor energy

usage, introduce new technology and so on to take our energy savings activities to a new level.

Furthermore, in fiscal 2007 our total CO₂ emissions including domestic and overseas business places was 240,000 tons, which is an 8% increase over the previous year. As a global enterprise we aim to promote global warming prevention measures overseas as well.

Transition of CO₂ emission (offices and factories)CO₂ emission for overseas manufacturers plants in each region*

* Regarding the CO₂ emission from purchased electricity, we use each country's GHG protocol coefficient. Regarding fuel, we use the same coefficients as in Japan. (See P.14.)

Clean energy

NGK Spark Plug Group promotes the use of solar panels as clean energy.

The head office and factory has solar panels installed on the roof of the main building, secondary building and head factory as well as a solar heated hot water tank on the roof of the club building. A large scale solar panel that can produce up to 107 kW is also installed on the roof of the new factory completed in 2007 at the Komaki factory.



Solar Panels (Komaki factory)

Logistics

The volume of cargo (including products and waste) that we shipped in 2007 totaled 49,190,000 ton-kilometers making us a specified consigner as determined in the Act on the Rational Use of Energy.

To curb the amount of greenhouse gasses expelled as part of our shipping operations the NGK Spark Plug Group has introduced low pollution vehicles and reviewed shipping routes. In 2007 we were able to reduce the volume of shipped goods by reviewing packaging. Moving forwards, we are working to continue our energy saving activities in logistics.

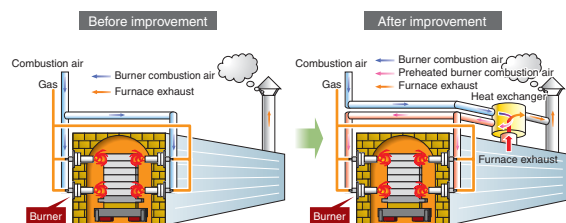


Nittoku Unyu

Case examples

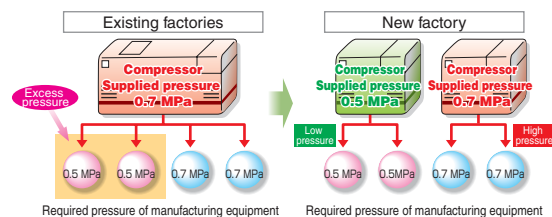
Energy savings from use of waste heat in furnaces

The production of spark plugs includes a process wherein insulator parts are baked in a furnace. To effectively use the energy required by the furnace we improved the furnace to reuse waste heat. The heat in the exhaust waste heat is collected in a heat exchanger. By preheating air used for combustion we were able to recycle approximately 50% of the waste heat in the furnace core. This enabled us to gain a carbon dioxide reduction of roughly 42 tons annually.



Energy savings from splitting compressor air supply into two

When establishing the new factory we reviewed the compressed air supply method to make the energy used in the factory more efficient. In other factories at the time we used a single compressed air supply line, which meant that the pressure had to meet the requirements of high-pressure equipment. This in turn, meant that some equipment was being supplied with too much pressure, wasting energy. To address this issue we divided the compressed air supply into two supply lines at the new factory, one high pressure and one low pressure. This enabled us to gain a carbon dioxide reduction of roughly 300 tons annually.



Environmental Conservation

5

Results of computing greenhouse gases according to the system for computing, reporting on, and publicizing the quantity of greenhouse gases

The volume of our greenhouse gas emissions in fiscal 2007 is as listed in the table below.

All of our factories are Type 1 Designated Energy Management Factories as defined in Act on the Rational Use of Energy and each year report their energy use volume and energy source carbon dioxide emission volumes.

Furthermore we ensured that no gasses other than carbon

dioxide at the energy source exceed 3,000 tons calculated as CO₂ in any of the factories, and thus do not fall under the reporting requirements of the Law Concerning the Promotion of the Measures to Cope with Global Warming.

We will continue to calculate our annual greenhouse gas emissions and strive for appropriate global warming prevention.

Greenhouse gas emissions in fiscal 2007

(tons CO₂)

		Head Office/Factory	Komaki Factory	Miyanojo Factory	Ise Factory	Total
Energy-based carbon dioxide	CO ₂	10,882	124,740	21,243	23,300	180,165
Non-energy-based carbon dioxide	CO ₂	—	2	—	—	2
Methane	CH ₄	17	122	7	15	162
Nitrous oxide	N ₂ O	6	63	6	5	80
Hydro-fluorocarbon	HFC	3	220	19	—	242
Perfluorocarbon	PFC	—	1,863	—	1,329	3,192
Sulfur hexafluoride	SF ₆	0.1	101	318	5	424
Total		10,908	127,111	21,594	24,654	184,267

* This table uses the coefficients defined in the Law Concerning the Promotion of the Measures to Cope with Global Warming.

Factory/Office

Waste Material

Basic Philosophy

The NGK Spark Plug Group handles waste material in the following priority sequence in order to make maximum effective use of resources.

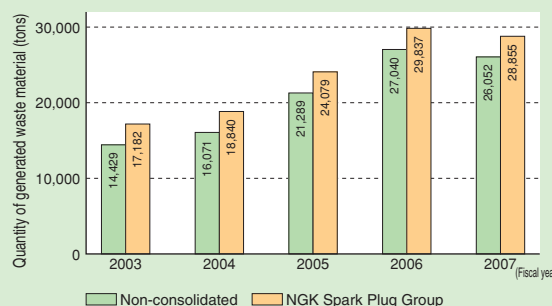
① Reduce ② Reuse ③ Recycle ④ Buried and incineration

During fiscal 2006, the Group achieved zero emissions in all regions. Moving forwards, we will continue to reduce waste material and also make efforts to reduce the residue remaining after waste material has been treated.

Definition of effective use

Effective use is the ability to reuse and recycle the valuable parts of the waste generated from our factories (including the thermal recycling). This includes waste materials sold as valuable resources.

Trend of quantity of generated waste material



Definition of zero emission

We define zero emission as the state in which the recovery rate of waste, including both industrial waste and general waste from our operations, is at least 98%.

$$\text{Recovery rate} = \frac{(\text{Reused or recycled amount})}{(\text{Reused, recycled, or buried/incinerated amount})} \geq 98\%$$

Results with respect to the fiscal 2007 targets

In fiscal 2007 we aimed to devise measures in order achieve a target reduction of 3,490 tons at NGK Spark Plug Co., Ltd. and a target reduction of 110 tons at our affiliates. By implementing highly effective measures we were able to reduce 4,197 tons across the whole group, meeting our goals.

	Fiscal 2007 target	Fiscal 2007 results
NGK Spark Plug Co., Ltd.	3,490 tons	4,045 tons
Affiliates	110 tons	152 tons
Total	3,600 tons	4,197 tons

Case examples of main measures

- Waste reduction due to resin molding design changes
- Internal treatment of waste acids and alkaline materials due to introduction of waste fluid treatment devices
- Reduction of waste due to lower defect rates

On-site confirmation of waste material treatment contractor

To ensure that waste material consigned to be treated by a processing contractor specified by the Group was being appropriately treated, we carry out annual on-site checks at the interim treatment plant and also at the final disposal site. We not only verified that appropriate treatment was taking place, but also investigate the amount of residue sent to the landfill after recycling treatment. As a result we discovered that of waste recycled, the residue sent to landfill was less than 1% with almost all waste being recycled.



On-site inspection

Contractors visited

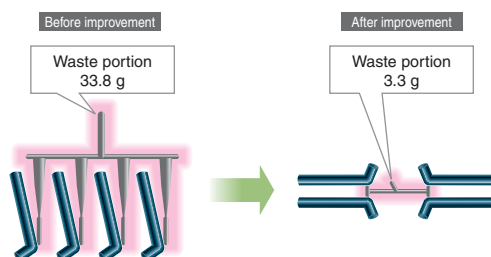
	NGK Spark Plug Co., Ltd.	Affiliates
Number of waste treatment contractors	33	21
Total number of visitors	77	49

Case example

Waste reduction due to resin molding design changes

The thermoset plastic plug caps are made with a mold. The plastic molds require a channel for plastic to enter the mold, however the leftover plastic in this channel is not part of the product and is treated as recyclable waste. To reduce this waste we changed the shape of the mold to reduce these channels, realizing a 90% reduction waste.

We also contributed to similar waste reduction at our clients by applying the same method with our process consignment partners.

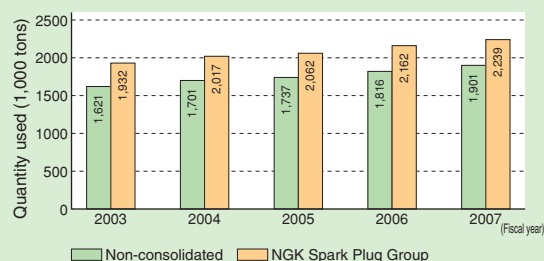


Water Resources

Basic Philosophy

At the NGK Spark Plug Group we believe water is an important resource and we are taking measures to reduce the amount of tap and well water used in our business activities.

Trend of the quantity of tap water and well water used



Results with respect to the fiscal 2007 targets

In fiscal 2007, we set a water reduction target of 73,000 m³ for NGK Spark Plug, and a target of 11,000 m³ for our affiliates, that is, a total reduction of 84,000 m³. Since the initial plan was drawn up, many measures were implemented, but the reduction attained for the whole Group was 92,998 m³, achieving our goals.

	Fiscal 2007 target	Fiscal 2007 results
NGK Spark Plug Co., Ltd.	73,000 m ³	80,408 m ³
Affiliates	11,000 m ³	12,590 m ³
Total	84,000 m ³	92,998 m ³

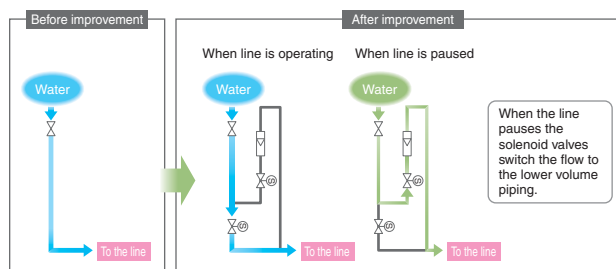
Case examples of main measures

- Reduced water consumption due to improved method of water supply on the coating line
- Reduced reserve water consumption due to using filtered effluent water
- Reduced water volume due to improvements to the air conditioning water tank resupply equipment

Case example

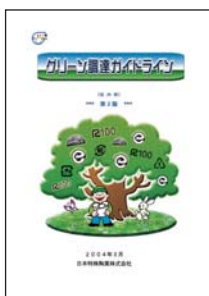
Reduced water consumption due to improved method of water supply on the coating line

To reduce the amount of water used in the coating process in the production of ceramic packages we implemented improvements to the water supply method. By installing water conserving pipes and solenoid valves in the water source pipes, when the production line pauses (for example, while waiting for products) the water is reduced to half the flow of normal operation reducing annual water usage by 1,400 m³.



Green Purchasing

Use of eco-friendly office supplies



In order to increase the awareness of environmental protection at each workplace and promote activities that take into account energy saving, and so on, the Group actively selects products that are kind to the environment when purchasing or using products related to daily work activities.

Version 2 of our "Green Procurement Guidelines (In-house Use)," published

in March 2004, specifies that eco products should meet all or some of the following requirements, promoting the purchase of eco products:

- Have less environmental impact during use.
- Have a significant effect on environmental improvement during use.
- Have less environmental impact during the disposal stage after use.
- Comply with relevant laws, standards, regulations, etc. in terms of quality and safety.
- Be preferably priced the same or lower than similar products (in consideration of longevity).

Eco-car

To reduce our environmental burden due to logistics and business activities at the NGK Spark Plug Group we are

promoting the transition to vehicles with low environmental burden when renewing the vehicles owned by the company.

Number of vehicles owned by the company

Category	NGK Spark Plug Co., Ltd.		Affiliates
	Head Office/Factory	Domestic business sites	
Total number of company vehicles	122	98	23
New☆☆☆☆ (75%-decreased level in the exhaust gas standards in 2005)	34	45	6
New☆☆☆ (50%-decreased level in the exhaust gas standards in 2005)	10	19	3
☆☆☆ (75%-decreased level in the exhaust gas standards in 2000)	10	20	6
☆☆ (50%-decreased level in the exhaust gas standards in 2000)	9	7	1
☆ (25%-decreased level in the exhaust gas standards in 2000)	5	6	0
Others (Exempted from exhaust gas regulations)	54	1	7

(No. of cars)



Natural gas vehicle

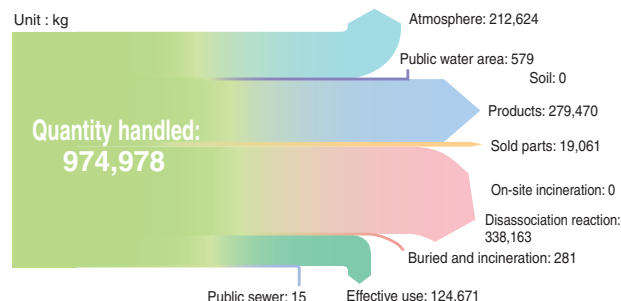
Factory/Office

Hazardous Substances

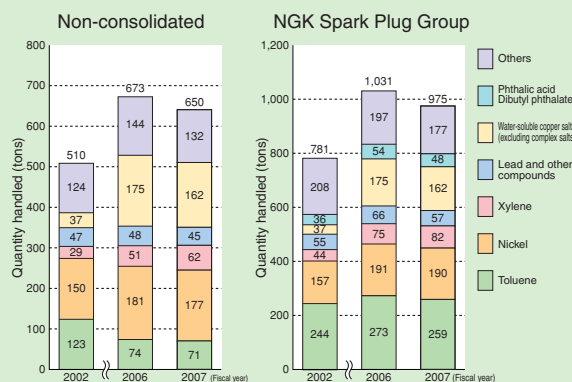
We are striving to reduce the release of PRTR law-regulated substances to the atmosphere or water by 80% of the figure for fiscal 2002, by fiscal 2010. We are also setting annual goals and undertaking activities to reduce volatile organic compounds (VOC).

Our goal for fiscal 2007 to replace dichloropentaphluoropropane (HCFC-225) completed preparation in March 2008 and from April every factory completely transitioned. Our goals for VOC reduction are the same as last year's goals for the whole group. To reduce quantity released in fiscal 2007 we implemented a trial introduction of devices that collect toluene, which has higher release levels. We look to continue advancing our measures to reduce our use of hazardous substances.

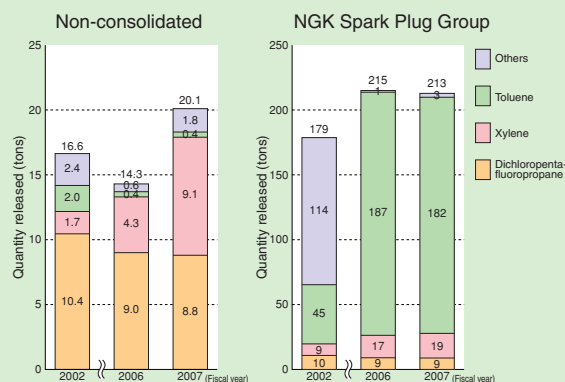
INPUT-OUTPUT of PRTR law-regulated substances



Quantity of PRTR law-regulated substances handled



Quantity of PRTR law-regulated substances released



* Substances concerning which notification must be made by each office or factory are indicated above.

Column

Overseas affiliate environmental conservation activities (NGK Spark Plugs (U.K.) Ltd.)



NGK Spark Plugs (U.K.), Ltd. was established in 1975 and is now located in purpose built premises in Hemel Hempstead, Hertfordshire. In 25 years it has advanced from a market share of under 6% to one of over 50% and increasing.

1975 : Established NGK Spark Plugs(U.K.), Ltd.

1996 : ISO9000 accredited

2001 : ISO14001 accredited

2008 : Honda 'BEST' supplier ranking 36 months consecutively



Company Name : NGK Spark Plugs (U.K.), Ltd.
Scope of Business : Sales of automotive components, communication media components and technical ceramics
Address : Maylands Avenue, Hemel Hempstead UK, HP2 4SD
Tel : +44 (0) 1442 281000
Fax : +44 (0) 1442 281001

Fiscal 2007 Material Balance

Input

Type	Classification	Quantity
Energy	Purchased electricity	190 MWh
	Gas	87 Therms
	Gasoline	87 kL
Paper	Copy paper	1.9 tons
Water	Tap water	62 m³

Output

Type	Classification	Quantity
CO2 from energy consumption	Office	100 tons
Waste	Copy paper	33 tons
	Buried/incineration	34 tons

Environmental Conservation Activities

NGK Spark Plugs (U.K.), Ltd. recycles, office paper, magazines, plastic bottles, aluminium cans etc. The aim of the programme is to reduce waste to landfill.

NGK Spark Plugs (U.K.), Ltd. food waste is being turned into usefull renewable energy rather than unfavourable landfill. The canteen food waste is taken to a biogas plant where the methane produced is transferred to a generator and converted into electricity and heat.

A recent addition has been the saving printed paper for re-printing or using as note pads.

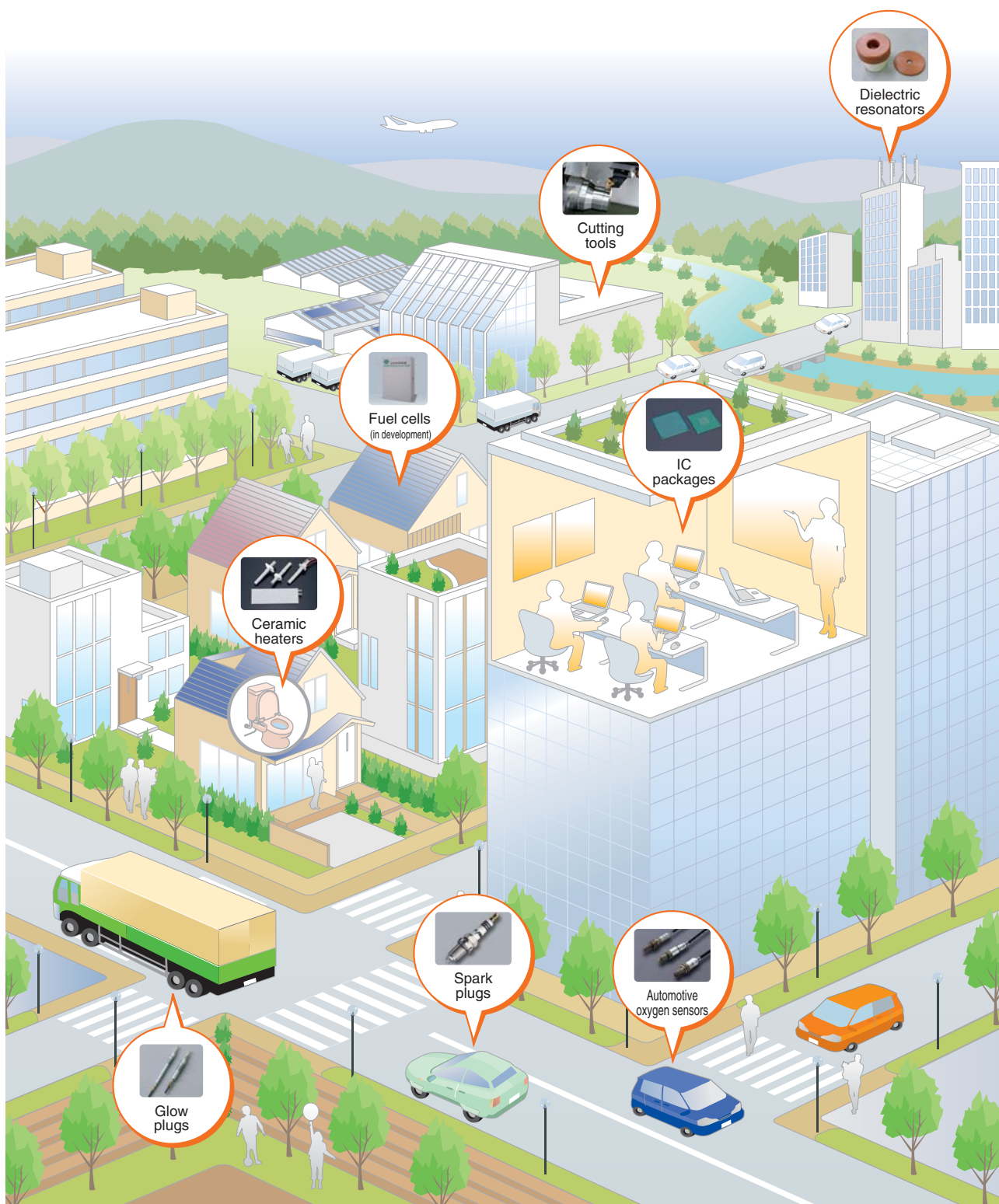


Products

Technology at work behind the scenes

Our foundation of technology and specialist knowledge related to ceramics gathered over our long history supplies many kinds of products to our customers. Our products are used in many common items such as automobiles, computers, cell phones, medical equipment and so on.

These products are composed of many parts so maybe the average consumer does not see our work, however our products and technology contribute behind the scenes to the environment and society.



Products

Development of Eco-products

We are aiming to reduce our environmental burden through the entire product lifecycle so that our environmental product policy : "We will work towards the development, design, procurement, manufacture, sale, distribution and disposal of environmentally friendly products."

With regards to product development we are pursuing development that keeps used resources and energy as low as possible and that is useful for saving energy and

preventing environmental damage when used in final products.

Our six divisions send their wide-ranging products throughout the globe and conduct research and development into next generation products. In this section we will introduce some of the ways we consider the environment for representative products.

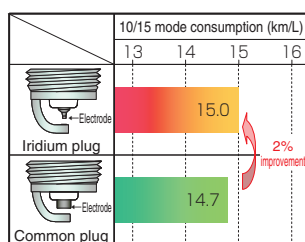
Spark Plugs

Spark plugs are mounted in automotive engines as functional parts that ignite the fuel.

Our iridium plug uses iridium alloy in the electrode, enabling a more precise electrode because of its high strength and melting point, reducing used noble metals, lengthening lifetime and improving ignition to improve fuel consumption and reducing the toxic substances in the exhaust.

Narrowing the spark plug contributing to improved

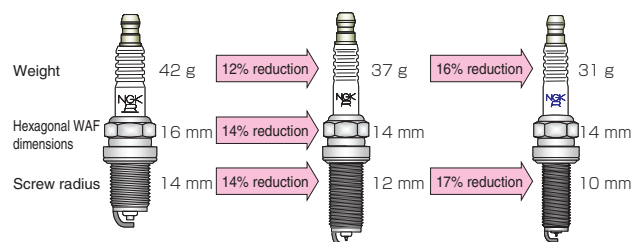
■ Iridium plug and common plug fuel consumption comparison



Engine : 1.5L, 4 Cylinder, DOHC
Test mode : 10/15 mode
* Internal evaluation example.
Effects will vary based on engine type and driving conditions.

characteristics including reduced fuel consumption and low emission engine, as well as reducing required resources and product processing energy (in particular, the ceramic baking process).

■ Spark plug size and weight comparison

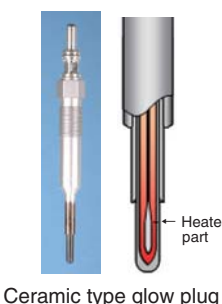


Glow Plugs

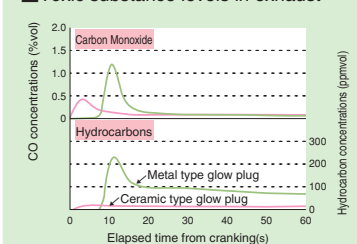
Glow plugs are used as preheating devices supporting combustion in diesel engines. Diesel vehicles have good fuel efficiency and low carbon dioxide emissions and are thus being considered as a means of preventing global warming.

Normally glow plugs are metal products but we manufacture high performance ceramic type glow plugs as well. By using ceramics in the heater part we can rapidly heat it to a high temperature reducing time to start and reducing the toxic substances in the gas released immediately after starting.

Also ceramic heaters have a long lifetime; at the present with the promotion of idling stops, we can support the increased number of times engines are started and stopped.



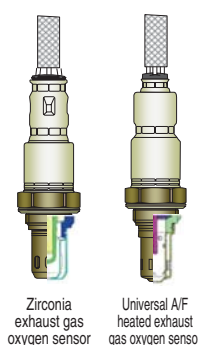
■ Toxic substance levels in exhaust



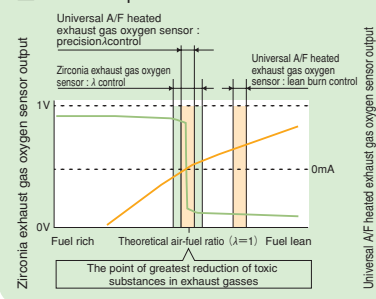
Automotive Oxygen Sensors

Automotive oxygen sensors give off electric signals based on the oxygen concentration in the exhaust. The signals from the sensor are used to appropriately adjust the engine's air-fuel ratio. The sensor thus fulfills the role of reducing toxic substances in the exhaust.

We have developed zirconia exhaust gas oxygen sensors, which determine graduated oxygen concentration, as well as universal A/F heated exhaust gas oxygen sensors that outputs signals comparing oxygen concentration. In particular the universal A/F heated exhaust gas oxygen sensors have been highly regarded for their effects: reducing toxic substances in exhaust and improving fuel consumption. We are also continuing development to contribute better environmental conservation. For example when starting the engine, reducing the length of time it takes to operate to rapidly clean the exhaust gasses.



■ Sensor output characteristics

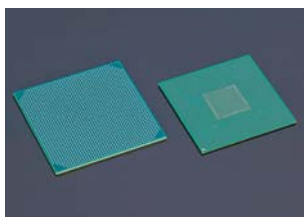


IC Packages

The IC package is the board in which the heart of the computer, the CPU (central processing unit) and its supporting chipset is installed.

We develop interconnection technology and wiring designs that join the two together and we are working to develop a package that puts two die areas (signal parts) in a single package. Based on this development, we support space savings; reducing materials and thus environmental load.

Furthermore, with regards to materials, we are mass-producing products that make use of halogen free materials and lead free solder. We have started to support servers and ultra-portable computers in addition to our current line up of desktop and laptop products.



Organic IC Package

Cutting Tools

Cutting tools are used in metal cutting processes.

The cutting tools made of ceramics and cermets that we produce have excellent thermal resistance, removing the need for coolants and their environmental load and reducing waste as well as reducing the energy used for coolant. They are also highly wear resistant and thus have a long usage lifetime.

The holder accessory wrench is easily separated into metal and plastic parts for easy recycling and is an environmentally friendly product.



Cutting tools



Wrench

Dielectric Resonators

Dielectric resonators are used as filters to select and receive specific radio frequencies in telecommunication base stations for cell phones and so on.

Dielectric resonators are ceramic sintered objects. Until now they were made by molding and baking, and then polishing to finish. We succeeded in creating resonators where the finishing polishing process is unnecessary by finely controlling the molding process conditions.

Using this approach we can reduce waste and required materials that would otherwise be shaved off during polishing. Without a polishing phase, the cleaning phase that follows also became unnecessary, saving energy and reducing water usage.



Dielectric resonator

Ceramic Heaters

Ceramic heaters are primarily incorporated into heated toilet seats to warm fluid in the seat.

The ceramics used in the heaters have high electrical resistance allowing heaters with large electrical capacity. They also have good heat conduction properties that allow for instant heating of water. This means that when not needed they do not require current and contribute to energy savings. They are also special for their long life because the heating element is embedded in the ceramic and baked together giving excellent chemical resistance and reducing occurrence of disconnecting wires or change over time.



Ceramic heaters

Fuel Cells

Fuel cells have gained attention as power generation systems that are highly efficient and impose a small environmental burden.

In October 2007 we developed a plate shaped power generation stack that maintains consistent output at 700 degrees Celsius of greater than 0.73W/cm², the highest world standard. By freely applying our unique sensor and electrical circuit technology to this cell to support a unique control concept we constructed an extremely compact 1kW class solid oxide fuel cell power system.

Looking to the future we will be active receiving orders with our primary target market of home and small-scale cogeneration* as well as communicating with end users while promoting

research to verify the reliability of the power generation system and continuing to put together mass-production systems.

* Cogeneration : generating electricity and using the waste heat



View of 1kW class power generation stack



1kW class solid oxide fuel cell power generation system

Products

Control of Hazardous Substances

Basic Philosophy

Regulations on hazardous substances, as represented by the ELV directive and the RoHS directive, are becoming stronger worldwide, and control of chemical substances contained in products is being demanded. Also, in June 2007, the REACH regulation were implemented, and as a result it is necessary to control a wider range of chemical substances. In order to

prevent products from contaminating the environment, we have constructed and are implementing a control setup consisting of three stages: (1) meeting the customer's demands, (2) handling control within the Group, and (3) procurement from suppliers.

1 Customer

Along with the strengthening of regulations related to chemical substances contained in products, customers (manufacturers) are placing increasingly strong demands on products.

The NGK Spark Plug Group meets various demands by for example submitting certificates stating that our products do not contain substances that load the environment, submitting data concerning chemical substances obtained using a JGPSSI tool or IMDS, filling in the chemical management surveys, and undergoing an audit by the customer.

* IMDS (International Material Data System) This system is intended to collect information on materials and the chemical substances that they contain, for the approximately 30,000 parts used in an automobile.

* JGPSSI (Japan Green Procurement Survey Standardization Initiative) This is a council consisting of volunteer electrical and electronic equipment manufacturers who are engaged in communication of chemical substances contained in parts and materials.

2 NGK Spark Plug Group

In order to appropriately control substances that impose an environmental load contained in products manufactured by the Group or our processes we obtained information concerning customer requests and legal regulations, and established a "hazard rank." We control the quantities of substances in this hazard rank, and also manage the situation concerning the substitution and reduction of prohibited or restricted substances.

In fiscal 2007 regulations related to substances that impose an environmental load were strengthened and we reviewed the entire hazard ranking.

Information control

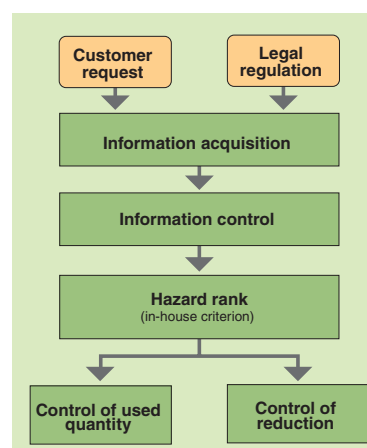
Information concerning acquired legal regulations and customer requests have been arranged into a list in such a way that it can be perused using an intranet within our shared internal web site.

Hazard rank

Hazardous substances are divided into prohibited, restricted, and controlled substances, depending upon the degree of danger or toxicity. Also, a handling criterion is established for each rank.

Hazard rank	Handling standard	Substances covered
Prohibited substances	Use is prohibited.	Substances prohibited from use or strongly restricted by regulations.
Restricted substances	A substitution program shall be proposed and the substances switched.	Hazard level and toxicity are equivalent to prohibited substances, but an immediate changeover is impossible due to its special characteristics.
Controlled substances	Emission into the environment and transportation upon use are controlled.	Mainly substances subject to PRTR Law

List of legal regulations



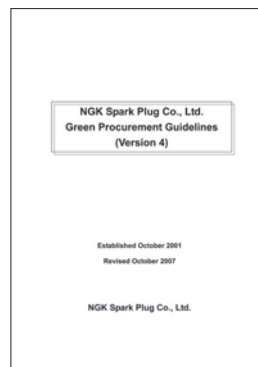
Control system

3

Supplier

In order to appropriately manage the state of chemical substances in our products we must have a system of cooperation with our suppliers to receive the chemical data of the materials we purchase and to submit declarations of indicated prohibited substances; we have received cooperation with these measures for managing substances that impose an environmental burden.

In fiscal 2007 we strengthened the cooperation system, reviewing our green supplier system and revising the green procurement guidelines. Based on these guidelines we audited our 298 suppliers of the base materials and parts related to our products and packaging materials; as of June 2008 we verified 203 of these companies as meeting our criteria, becoming green suppliers.



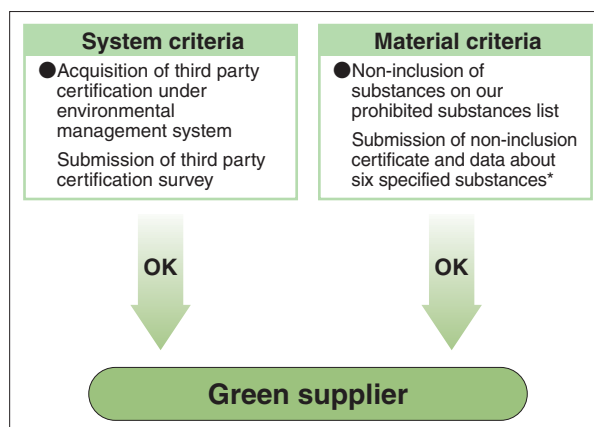
Green procurement guidelines



Green supplier certificate

Green supplier system

The certification criterion for green suppliers is that both the system criterion and the material criterion be satisfied. The system criteria include third party environmental management (ISO14001, EcoAction 21 and so on) accreditation. To meet the material criteria requires use of no substances on our prohibited substances list.



* Six specified substances : Lead, mercury, hexavalent chrome, cadmium, polybrominated biphenyl, and polybrominated diphenyl ether

Supporting our suppliers

We constructed a system for supporting the environmental activities of our suppliers. In fiscal 2007 we implemented ISO14001 accreditation support for six companies with two having received accreditation. We also hosted seminars for sixteen companies about EcoAction 21 accreditation and

for fourteen of those implemented accreditation support. In fiscal 2008 we will continue to implement this kind of supplier support activity.



Support completion certificate



EcoAction 21 seminar

Communication

Disclosure

Issuing an environmental report

The NGK Spark Plug Group has been issuing an "ECO report" since 2000, and also a "Site report" since 2003. The contents of the "ECO report," as an "Environmental and Social Report," have been changed since 2006 in order to give more coverage to the social aspect. We will continue to disclose information to enable the environmental and social activities of the Group to be understood.

Participation in environmental exhibitions

To make the general public aware of the group's environmental conservation activities we are setting up exhibits at various environmental events.

For three days in September of fiscal 2007, from the seventh to the ninth, we opened a booth at the Exhibition of Environmentally-Friendly Automotive Industry Technologies. Displaying our spark plugs and sensors, we introduced the ways our technology contributes to the environment.



Environmental exhibition

Community

Accepting visitors at environmental factories

We are hosting tours of our environmental factories in order to have people living close to us or those broadly connected to the group understand our environmental activities as well as deepen our communication.

We have also participate as a member of the overseas exchange sectional committee of the Environmental Partnership Organizing Club (EPOC) for the purpose of constructing an environmental society and carrying out exchange concerning the environment, and accepting factory visits. In July 2007, we accepted overseas trainees from the Association for Overseas Technical Scholarship to tour our factories and introduced our production process and environmental measures.



Factory tour (Head Office Factory)



Factory tour (Komaki Factory)

Number of visits

Local residents, schools and local governments	7 conferences
Companies and organizations	2 conferences

Environmental conferences

We hold conferences mainly with representatives of the local residents to enable them to understand our environmental conservation activities and also to obtain their opinions.

Fiscal 2007	13 conferences 84 people
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Natural Environment

Local cleaning activities

In order to maintain the environment surrounding our offices and factories and also the local environment, we periodically carry out cleaning activities and also participate in cleaning and beautification activities held by the local community.

Cleaning activities around our business sites

Area	Cleaning events
Head Office and Head Office Factory	4 times (total 80 people)
Komaki Factory	9 times (total 265 people)
Miyanojo Factory	3 times (total 108 people)
Ise Factory	2 times (total 51 people)
Iijima Ceramic	2 times (total 30 people)
Nakatsugawa Ceramic	4 times (total 46 people)
Kani Ceramic	2 times (total 132 people)
Nansei Ceramic	4 times (total 55 people)
Kamioka Ceramic	2 times (total 54 people)
Nittoku Seisakusho	8 times (total 104 people)
Nichiwa Kiki	2 times (total 47 people)
Tono Ceramic	12 times (total 144 people)
Ceramic Sensor	2 times (total 23 people)



Cleaning activities (Head Office Factory)



Cleaning activities (Miyanojo Factory)

Cleaning activities held by the local residents

Participation area	Event name	Held by	Location
Komaki factory, Ceramic sensor	Mt. Komaki Beautification Activities	Komaki City	Mt. Komaki
Iijima Ceramic	Environmental picnic	Ina Techno-valley Regional Center of the Nagano Prefecture Techno Foundation	Tenryu River
Komaki Factory	Komaki Beautification Activities	Komaki City	Civic Hall area
Kani Ceramic	Kani River mass cleanup	Kani City	Kani River
Nittoku Seisakusho	Oguchi Town cleanup activities	Oguchi Town	Embankments on both sides of the Aise River



Mt. Komaki beautification activities

Promotion of factory greening

To reduce the affect our business activities have on the environment we are promoting greening of our factory grounds. We are active in maintaining the greenness of our grounds including field maintenance, tree planting and pruning.

At the Komaki Factory we have greened a total area of approximately 1,080 m² of the roofs of the first factory and research and welfare buildings.



Field on our factory grounds (Kamioka Ceramic)



Rooftop greening (Komaki Factory)

Mind

Education and Enlightenment

Safety/health and environmental convention

The NGK Spark Plug Group's employees are all aware of environmental and health and safety issues. To improve their consciousness of these issues we hosted central and local area safety/health and environmental conventions. The themes in fiscal 2007 were, "Making health" and, "Global warming: reducing carbon dioxide." There were lectures, reports, presentations of example measures, and panel exhibitions to which we invite local residents as well.



Lecture



Panel Exhibition

Promotion of acquisition of public qualifications

In order to observe the laws and voluntary regulations related to environmental preservation and appropriately advance, we train employees to have specialized knowledge and also promote the acquisition of public qualifications, according to the business contents of each factory or affiliate.



Specially controlled industrial waste manager

Environment card

We distribute environment cards to all employees of the NGK Spark Plug Group so that they understand and are aware of our environmental policy.

The employees write the "organizations objectives and goals" and "my individual efforts" on the environment cards to ensure that they remain aware of environmental conservation.



Environment card

Health, Safety and Environmental News

To educate and enlighten our employees, we regularly issue "Health, Safety and Environmental News", which provides information on items such as measures and events concerning the environment, health and safety, and various related events to improve the diffusion of knowledge and awareness.

We commenced issuing an English language version in fiscal 2005 to cover our overseas offices and factories.



Environmental education

To deepen employee understanding of environmental issues and make them aware of the importance of our environmental activities as a business we implemented environmental education in different levels.

To increase opportunities to improve environmental consciousness in fiscal 2007 we reviewed our environmental education system. With our current environmental education as part of new employee training and new management training we implemented environmental education during new assistant manager training. In the future we look to expand the education target range such as adding environmental items to the third-year employee training.

Numbers of officially qualified employees

(people)

		NGK Spark Plug Co., Ltd.	Affiliates
Pollution control manager	Air	40	2
	Water	72	12
	Noise	37	3
	Vibration	26	3
Energy manager		33	9
Specially controlled industrial waste manager		38	18
Environment measurement engineer		3	0
Work environment measurement engineer		6	1

Electronic announcement system: N-WING

To increase employee consciousness of environmental conservation our group broadcasts environmental issues on our electronic announcement system, N-WING. On displays installed in four domestic factories, our sales locations and affiliates we show various issues ranging from global environmental issues to in-house topics.



Employee magazine "Nittoku"

Our monthly employee magazine "Nittoku" includes pages devoted to the environment.

To help raise an environmental awareness among our employees, this magazine covers a broad range of issues related to the environment not only from our company's activities but also in Japan and overseas, and the impact of environmental consideration on our actions both inside and outside the workplace.



Data

PRTR

* The table contains the substances that each business location was required to report

(kg)

The table contains the chemical substances that each business location was required to report												
Area name	Cabinet order No.	Name of chemical substance	Quantity handled	Quantity released			Quantity transferred			Quantity removed and dissociation reaction	Quantity taken out	
				Atmosphere	Public water area	Soil	Public sewer	Buried and incineration	Effective use		Product/Sold	
Head Office / Factory	40	Ethylbenzene	5,037		0					5,037		
	63	Xylene	24,525	1			1	0		24,523		
	68	Chromium and chromium (Ⅲ) compounds	6,632				14	0	613		6,018	
	108	Inorganic cyanide compounds (except complex salts and cyanates)	1,105							817	273	
	144	Dichloropentafluoropropane ; HCFC-225	2,600	2,600							0	
	224	1,3,5-trimethylbenzene	2,578							2,578		
	227	Toluene	55,351	72				0		55,279		
	231	Nickel	56,206						81		56,125	
	299	Benzene	2,099	0						2,098		
Komaki Factory	19	3-amino-1H-1,2,4-triazole ; amitrole	1,536						1,521	15		
	24	N-alkylbenzenesulfonic acid and its salts (alkyl C=10-14)	2,283							2,283		
	25	Antimony and its compounds	2,718						621		2,097	
	30	Polymer of 4,4'-isopropylidenediphenol and 1-chloro- 2, 3-epoxypropane (liquid) ; bisphenol A type epoxy resin (liquid)	8,649							8,649		
	40	Ethylbenzene	3,628	30					1,287	2,310		
	63	Xylene	31,043	2,578					11,442	17,023		
	68	Chromium and chromium (Ⅲ) compounds	1,493					2	703		787	
	100	Cobalt and its compounds	3,248					3	263		2,982	
	108	Inorganic cyanide compounds (except complex salts and cyanates)	9,132						47	2,803	6,277	
	144	Dichloropentafluoropropane ; HCFC-225	2,760	2,760								
	207	Copper salts (water-soluble,except complex salts)	162,345		46				4,929	157,370		
	227	Toluene	15,320	342					33	14,942		
	230	Lead and its compounds	1,659					156	71		1,432	
	231	Nickel	10,713					21	63		10,629	
	232	Nickel compounds	14,626		91				5,283	9,251	26	
	299	Benzene	1,474	7						1,467		
	304	Boron and its compounds	18,108		398			78	2,668	0	14,964	
	309	Poly (oxyethylene) nonylphenyl ether	2,971						2,918	52		
	310	Formaldehyde	13,550						13,420	130		
	311	Manganese and its compounds	2,512		43			21	2,242		25	
	346	Molybdenum and its compounds	1,791	0					54		1,738	
	Miyanajo Factory	68	Chromium and chromium (Ⅲ) compounds	1,709					0	1,622		88
		108	Inorganic cyanide compounds (except complex salts and cyanates)	2,993						14	2,979	
144		Dichloropentafluoropropane ; HCFC-225	3,465	3,465								
231		Nickel	110,424								110,424	
304		Boron and its compounds	5,516						207		5,304	
Ise Factory	30	Polymer of 4,4'-isopropylidenediphenol and 1-chloro- 2, 3-epoxypropane (liquid) ; bisphenol A type epoxy resin (liquid)	1,526							1,374	153	
	40	Ethylbenzene	1,221	1,154					67			
	43	Ethylene glycol	1,848						1,848			
	63	Xylene	6,923	6,541					382			
	230	Lead and its compounds	43,641						8,707		34,807	
	310	Formaldehyde	1,824						1,824			
	311	Manganese and its compounds	1,510						1,256		254	
Subtotal			650,290	19,551	578	0	15	281	64,369	310,981	254,401	
Iijima Ceramic	63	Xylene	6,318	4,228					2,090			
	68	Chromium and chromium (Ⅲ) compounds	2,798						1,245		1,553	
	108	Inorganic cyanide compounds (except complex salts and cyanates)	3,902		1				3,048	134	718	
	227	Toluene	68,716	68,716								
	230	Lead and its compounds	3,507						610		2,897	
	231	Nickel	2,138								2,138	
	232	Nickel compounds	2,440						2,440			
	270	Di-n-butyl phthalate	14,750						1,853	12,897		
	346	Molybdenum and its compounds	1,270						689		581	
Nakatsugawa Ceramic (Nakatsugawa Factory)	63	Xylene	11,489	4,274					6,998		217	
	64	Silver and its water-soluble compounds	1,380								1,380	
	68	Chromium and chromium (Ⅲ) compounds	7,416						3,899		3,517	
	227	Toluene	82,685	82,043					642			
	230	Lead and its compounds	3,954						767		3,188	
	270	Di-n-butyl phthalate	24,874						11,369	10,259	3,246	
	272	Bis(2-ethylhexyl) phthalate	4,390						3,538	237	615	
	346	Molybdenum and its compounds	2,798						260		2,538	
Nakatsugawa Ceramic (Takenami Factory)	227	Toluene	37,355	31,148					6,207			
	230	Lead and its compounds	4,004						461		3,543	
	270	Di-n-butyl phthalate	5,311						1,277		4,034	
	272	Bis(2-ethylhexyl) phthalate	2,563						343		2,220	
Kani Ceramic	40	Ethylbenzene	1,252	1,252								
	63	Xylene	1,412	1,412								
Nittoku Seisakusho (Oguchi Factory)	270	Di-n-butyl phthalate	3,016						1,450	1,568		
	231	Nickel	10,310								10,310	
Ceramic Sensor	253	Hydrazine	9,860						8,574	1,286		
	283	Hydrogen fluoride and its water-soluble salts	2,772						2,543	229		
	304	Boron and its compounds	2,008							573	1,435	
Total			974,978	212,624	579	0	15	281	124,671	338,163	298,531	

Waste

Office or factory		Volume of emissions (tons)	Volume effectively used (tons)	Volume of buried and incineration (tons)	Recovery rate (%)
NGK Spark Plug Co., Ltd.	Head Office/Factory	914	905	9.6	98.9%
	Komaki Factory	18,189	18,085	104.0	99.4%
	Miyanajo Factory	3,411	3,392	18.3	99.5%
	Ise Factory	3,538	3,527	10.8	99.7%
	Subtotal	26,052	25,909	142.7	99.5%
		1,051	1,040	10.8	99.0%
Affiliates	Iijima Ceramic	425	419	6.1	98.6%
	Nakatsugawa Ceramic	74	73	0.4	99.4%
	Nansei Ceramic	11	11	0.1	99.5%
	Kamioka Ceramic	57	57	0.4	99.3%
	Nittoku Seisakusho	242	240	1.8	99.3%
	Nichiwa Kiki	7	7	0.1	98.8%
	Tono Ceramic	19	19	0.2	98.9%
	Ceramic Sensor	917	914	3.2	99.7%
	Total	28,855	28,689	165.7	99.4%

For inquiries

Office or factory		Contacts for inquiries (Dept. name/tel)	
NGK Spark Plug Co., Ltd.	Head Office/Factory	Environment and Safety Management Dept.	+81 52-872-5980
	Komaki Factory	Environment and Safety Management Dept.	+81 568-76-1544
	Miyanajo Factory	Environment and Safety Management Dept.	+81 996-53-2211
	Ise Factory	Environment and Safety Management Dept.	+81 596-39-1534
	Iijima Ceramic	General Administration Dept.	+81 265-86-5211
	Nakatsugawa Ceramic	General Administration Dept.	+81 573-68-5300
Affiliates	Kani Ceramic	General Administration Dept.	+81 574-63-2511
	Nansei Ceramic	General Administration Dept.	+81 599-65-3366
	Kamioka Ceramic	General Administration Dept.	+81 578-82-1112
	Nittoku Seisakusho	General Administration Dept.	+81 52-811-3921
	Nichiwa Kiki	General Administration Dept.	+81 52-382-0511
	Tono Ceramic	General Administration Dept.	+81 574-63-1031
	Ceramic Sensor	General Administration Dept.	+81 568-76-5400

Atmosphere, water, noise

	Item	Type	Unit	Regulation value	Voluntary standard value	Average	MAX
Head Office/ Factory	Atmosphere	Soot and dust	Boiler (No.12)	mg/Nm ³	50	40	2.0
		Firing furnace (PR-2)	mg/Nm ³	150	120	10.5	11.0
		NOx	Boiler (No.12)	ppm	150	120	42
		Firing furnace (PR-2)	ppm	180	144	67.5	70
	Drain (sewer)	pH		5.0~9.0	5.4~8.6	6.9	7.3
		SS		600	480	13.3	29
		BOD		600	480	16	36
		n-hexane extract		30	24	1.1	2.8
		Cyanogen		1	0.8	0.16	0.3
		Total chromium		2	1.6	0.06	0.09
		Hexavalent chromium		0.5	0.4	0.06	0.06
		Zinc		2	1.6	0.59	0.97
		Lead		0.1	0.08	<0.02	<0.02
		Nitrogen		120	96	15.7	29
		Phosphorus		16	12.8	0.33	0.67
		Fluorine		8	6.4	0.22	0.6
		Boron		10	8	<1	<1
	Noise	Morning	R spot	dB	65	68	60.4
			T spot	dB	65	63	63.5
		Daytime	R spot	dB	70	68	60.6
			T spot	dB	65	63	66.2
		Evening	R spot	dB	70	68	62.4
			T spot	dB	65	63	64.8
		Night	R spot	dB	65	64	58.4
			T spot	dB	55	54	61.8
Komaki Factory	Atmosphere	Soot and dust	Boiler (No.1-5)	mg/Nm ³	200	160	<2
		Firing furnace (No.9-10)	mg/Nm ³	200	160	10	12
		NOx	Boiler (No.1-5)	ppm	250	200	18
		Firing furnace (No.9-10)	ppm	200	160	72	80
	Drain (public water area)	SOx	Boiler (No.1-5)	Nm ³ /h	8,379	6,703	<0.3
		Firing furnace (No.9-10)	Nm ³ /h	8,379	6,703	<2	<2
		pH		6.0~8.0	6.2~7.8	7.3	7.5
		SS		30	24	3.0	8.0
		BOD		25	20	4.5	10
		COD		mg/l	-	-	4.2
		n-hexane extract		mg/l	5	4	<0.5
		Cyanogen		mg/l	0.5	0.4	<0.1
		Total chromium		mg/l	1	0.8	<0.04
		Copper		mg/l	1	0.8	0.04
		Zinc		mg/l	1.8	1.6	0.18
		Lead		mg/l	0.1	0.08	<0.02
		Nitrogen		mg/l	120	60	9.2
		Phosphorus		mg/l	16	8	0.59
Miyanojo Factory	Atmosphere	Soot and dust	Absorption heater/chiller	mg/Nm ³	300	240	19
		Generator (No.2)	mg/Nm ³	100	80	-	-
		NOx	Absorption heater/chiller	ppm	180	144	50
		Generator (No.2)	ppm	950	900	-	-
	Drain (public water area)	SOx	Generator (No.2)	Nm ³ /h	39	30	-
		pH		6.0~8.0	6.5~7.8	7.4	8
		SS		35	28	7.9	15
		BOD		20	16	4.8	12
		n-hexane extract		mg/l	5	4	<2.5
		Cyanogen		mg/l	1	0.8	<0.05
		Hexavalent chromium		mg/l	0.5	0.4	<0.05
		Copper		mg/l	3	2.4	<0.05
		Zinc		mg/l	2	1.4	0.12
		Lead		mg/l	0.1	0.08	<0.01
		Fluorine		mg/l	8	6.4	<0.2
		Boron		mg/l	10	8	3
		Coli bacteria		counts/cm ³	3000	2400	Not detected
	Noise	Morning		dB	60	55	45.1
		Daytime		dB	65	60	51.3
		Evening		dB	60	55	46.8
		Night		dB	50	50	46.2
Ise Factory	Atmosphere	Soot and dust	Firing furnace	mg/Nm ³	250	100	5
		NOx	Firing furnace	ppm	180	140	90
		pH		5.8~8.6	6.0~8.4	7.7	8.0
		SS		30	24	1.1	2.0
	Drain (public water area)	BOD		mg/l	10	8	1.0
		COD		mg/l	15	12	1.0
		n-hexane extract		mg/l	5	2.5	<1
		Cyanogen		mg/l	1	0.5	<0.1
		Total chromium		mg/l	2	1	<0.04
		Hexavalent chromium		mg/l	0.5	0.25	<0.04
		Copper		mg/l	1	0.5	<0.02
		Zinc		mg/l	2	1.0	<0.005
		Lead		mg/l	0.1	0.05	<0.01
		Nitrogen		mg/l	120	60	0.38
		Phosphorus		mg/l	16	8	0.05
		Manganese		mg/l	-	-	<0.02
		Fluorine		mg/l	8	4	<0.1
	Noise	Boron		mg/l	10	5	0.01
		Coli bacteria		counts/cm ³	3000	1500	Not detected
		Morning	East	dB	55	55	46.4
		Daytime	East	dB	60	58	46.4
Iijima Ceramic	Atmosphere	Soot and dust	Firing furnace	mg/Nm ³	250	250	<5
		NOx	Absorption heater/chiller	mg/Nm ³	100	100	<5
		Firing furnace	ppm	180	180	<10	<10
		Absorption heater/chiller	ppm	150	150	29	33
	Drain (public water area)	pH		5.8~8.6	6.0~8.0	7.3	7.5
		SS		50	10	4.2	8
		BOD		30	25	1.7	3.1
		COD		30	30	4.3	8.6
		n-hexane extract		mg/l	5	5	<1
		Phenols		mg/l	5	5	0.02
		Cyanogen		mg/l	0.5	0.2	<0.01
		Copper		mg/l	2	2	0.04
		Zinc		mg/l	3	3	<0.05
		Lead		mg/l	0.1	0.1	0.006
		Ammonia		mg/l	500	500	10.2
		Fluorine		mg/l	15	15	0.53
		Boron		mg/l	50	50	1.35
		Coli bacteria		counts/cm ³	3000	3000	58.3
	Noise	Morning	First spot	dB	65	65	43.0
		Daytime	First spot	dB	65	65	48.5
		Evening	First spot	dB	65	65	49.2
		Night	First spot	dB	55	55	48.7

	Item	Type		Unit	Regulation value	Voluntary standard value	Average	MAX			
Nakatsugawa Ceramic (Nakatsugawa Factory)	Atmosphere	Soot and dust	Firing furnace(NN-1)	mg/Nm ³	50	20	4	6			
		SOx	Firing furnace(NN-1)	Nm ³ /h	—	—	0	0			
	Drain (public water area)	pH			—	5.8~8.6	6.2~8.6	7.4	7.6		
		SS			mg/l	50	35	2.8	4.0		
		BOD			mg/l	15	13	1.8	2.6		
		COD			mg/l	40	30	5.9	7.8		
		n-hexane extract			mg/l	5	4	<0.5	<0.5		
		Nitrogen			mg/l	10	10	4	6.9		
		Phosphorus			mg/l	3	2.5	0.05	0.18		
		Coli bacteria			counts/cm ³	3000	1000	48.7	230		
	Noise	Morning	Fourth spot	dB	60	58	51.5	52.0			
		Daytime	Fourth spot	dB	65	63	51.0	51.5			
		Evening	Fourth spot	dB	60	58	50.5	51.0			
		Night	Fourth spot	dB	50	50	47.0	49.0			
Nakatsugawa Ceramic (Takenami Factory)	Drain (public water area)	pH			—	5.8~8.6	5.8~8.6	7.3	7.9		
		SS			mg/l	200	100	2.3	4		
		BOD			mg/l	160	130	10.1	14		
		COD			mg/l	160	80	4.8	8		
		n-hexane extract			mg/l	5	4	<0.5	<0.5		
		Nitrogen			mg/l	120	120	1.4	2.1		
		Phosphorus			mg/l	16	16	0.04	0.07		
		Coli bacteria			counts/cm ³	3000	2000	96.3	360		
	Noise	Morning	Fourth spot	dB	50	50	46.5	47.0			
		Daytime	Fourth spot	dB	55	55	48.0	48.0			
		Evening	Fourth spot	dB	50	50	47.5	48.0			
		Night	Fourth spot	dB	45	45	45.0	45.0			
	Kani Ceramic	Atmosphere	Soot and dust		mg/Nm ³	100	90	7	7		
		Drain (sewer)	NOx		ppm	150	135	53	53		
pH					—	5.8~8.6	5.9~8.5	7.1	7.1		
SS					mg/l	200	180	4	4		
BOD					mg/l	160	144	26	26		
Noise		COD			mg/l	160	30	11	11		
		n-hexane extract			mg/l	5	4.5	1	1		
		Morning	First spot	dB	50	50	47.9	52.0 ⁻³			
		Daytime	First spot	dB	60	60	47.7	50.0			
Noise		Evening	First spot	dB	50	50	48.8	51.0 ⁻³			
		Night	First spot	dB	45	45	46.8	51.0 ⁻³			
Nansei Ceramic		Drain (public water area)	pH			—	5.8~8.6	7.1	7.2		
			SS			mg/l	—	90	<1	<1	
			BOD			mg/l	20	20	<1	<1	
	COD				mg/l	—	40	0.67	2		
	n-hexane extract				mg/l	—	5	<1	<1		
	Lead				mg/l	—	0.1	<0.01	<0.01		
	Nitrogen				mg/l	—	100	1.5	3.2		
	Phosphorus				mg/l	—	16	0.2	0.47		
	Noise	Coli bacteria			counts/cm ³	—	1000	0.67	2		
		Morning	North	dB	55	55	51.5	51.5			
		Daytime	North	dB	60	60	57.4	57.4			
		Evening	North	dB	55	55	53.1	53.1			
		Night	North	dB	50	50	46.7	46.7			
		Kamioka Ceramic	Drain (public water area)	pH			—	5.8~8.6	6.2~8.2	7.5	7.6
SS					mg/l	200	50	14.3	24		
BOD					mg/l	160	40	5.45	8.2		
COD					mg/l	160	40	8.36	9.3		
Noise	n-hexane extract				mg/l	5	2.5	<0.5	<0.5		
	Coli bacteria				counts/cm ³	3000	300	<30	<30		
	Morning		Fourth spot	dB	60	60	43	43			
	Daytime		Fourth spot	dB	65	65	46	46			
Nittoku Seisakusho (Head Office Factory)	Drain (sewer)		Evening	Fourth spot	dB	60	60	45	45		
			Night	Fourth spot	dB	50	50	45	45		
			pH			—	5.0~5.8	5.8~9.0	7.3	7.3	
			SS			mg/l	600	300	5	5	
	Noise		BOD			mg/l	600	300	8.7	8.7	
			n-hexane extract			mg/l	50	25	<0.5	<0.5	
		Morning	Second spot	dB	60	60	62	62 ⁻¹			
		Daytime	Second spot	dB	65	65	61	61			
Nittoku Seisakusho (Oguchi Factory)	Drain (public water area)	Evening	Second spot	dB	60	60	59	59			
		pH			—	5.8~8.6	6.0~8.4	7.4	7.4		
		SS			mg/l	30	30	18	18		
		BOD			mg/l	25	20	4.5	4.5		
		n-hexane extract			mg/l	5	4	3	3		
		Nitrogen			mg/l	120	60	1.3	1.3		
		Phosphorus			mg/l	16	8	0.03	0.03		
		Noise	Morning	First spot	dB	55	55	52	52		
	Daytime		First spot	dB	60	60	57	57			
	Evening		First spot	dB	55	55	54	54			
	Night		First spot	dB	50	50	42	42			
	Nichiwa Kiki		Drain (sewer)	pH			—	5.0~5.8	6.0~8.0	6.5	6.5
			Noise	n-hexane extract			mg/l	50	40	1.5	3
		Daytime			dB	65	63	61.9	61.9		
Tono Ceramic		Atmosphere	Soot and dust		mg/Nm ³	—	200	29	29		
			NOx		ppm	—	400	50	50		
			pH			—	5.8~8.6	6.6	6.6		
	SS				mg/l	—	200	1	1		
	Drain (public water area)	BOD			mg/l	—	160	2.3	2.3		
		n-hexane extract			mg/l	—	5	0.5	0.5		
		Morning		dB	50	50	49.0	49.0			
		Daytime		dB	60	60	56.3	57.0			
		Evening		dB	50	50	49.0	49.0			
		Night		dB	45	45	44.0	44.0			
		Atmosphere	Soot and dust		mg/Nm ³	200	200	1	1		
			NOx		ppm	—	—	63	63		
	Drain (public water area)		pH			—	6.0~8.0	6.0~8.0	7.3	7.5	
			SS			mg/l	18	18	6.3	10	
BOD				mg/l	18	18	3.8	6.3			
COD				mg/l	18	18	11.6	14			
n-hexane extract				mg/l	2	2	1	1			
Nitrogen				mg/l	30	30	11.2	15			
Phosphorus				mg/l	3	3	0.2	0.3			
Fluorine				mg/l	8	8	2.4	9.1 ⁻³			
Noise	Boron			mg/l	10	10	1.8	3.7			
	Daytime		dB	70	70	58.4	59.5				
Night		dB	60	60	57.9	58.9					

Social contribution

As a good corporate citizen, we shall actively engage in philanthropic activities and other activities of benefit to society.

- We are always keen to join social contribution initiatives such as fund raising by the general business community for the urgent support of victims of large-scale natural disasters.
- In areas where our production sites are located, we are committed to various types of social contribution activities whose aim is to enhance communication with the local communities and establish a more comfortable society.
- We will maintain an environment for encouraging employees to get voluntarily involved in social contribution.

Traffic Safety

As a corporation that is involved with the automobile industry, traffic safety is foundational. In addition to raising the awareness of safe operation among our employees, we also urge persons passing the vicinity of our office or factory to observe traffic safety.



Traffic safety education



Summer traffic safety campaign

Komaki Factory Traffic Safety Measures

Factory area risk map

We have gathered accident information for the area around the factory into a risk map to raise awareness of dangerous locations.



Risk map

Right-hand turn lane

The many employees that work at the Komaki Factory were causing traffic jams, becoming a local traffic safety issue. In 2007 we relieved the traffic by creating a right-hand turn lane in the T-junction by contributing land to add to the prefectural and municipal roads beside the factory property.



The new right-hand turn lane

Pedestrian bridge installation

Between our current factory and the new factory established in July 2007 there is an extremely busy prefectural road. To keep our employees safe as they come and go between the two facilities we installed a pedestrian bridge, contributing to the convenience of Komaki citizens as well.



Pedestrian bridge

Contribution to Local Communities

Large-scale natural disaster local support cooperation

As part of disaster assurance city planning activities Nagoya City is advancing its plans together with local businesses to build a disaster resistant city. Along with our neighborhood school zone in Mizuho Ward, Nagoya City, where our head office is located, we wrote up a memorandum of the resources and equipment that we can supply in case of a large-scale disaster.



Writing up the memorandum

Disaster prevention contributing organization

We are aware of the importance of disaster prevention measures and are regularly cooperating with local disaster prevention measures.

At the Aichi Disaster Prevention Cooperative Society Promotion Meeting 2007, hosted in November 2007 we were presented with an award as a disaster prevention contributing organization based on our donation of an earthquake simulation vehicle and our cooperation with Komaki City disaster prevention drills.

Support for foreign students

Nittoku Asia Student Scholarship Public Trust

NGK Spark Plugs is developing business in production and sales hubs around the world and especially in Asia, including Malaysia, Thailand, Indonesia, Taiwan, Korea, Singapore, China, India and the Philippines.

In June 2007 we established a scholarship fund for students from Asian countries attending universities and graduate schools in Aichi prefecture as a memorial of our 70th year since establishment that we celebrated in November of 2006.

In fiscal 2007 we supported eight students with our aim being to encourage friendly relationships between Japan and Asian countries and to develop new human resources.



Presentation ceremony

Participation in regional events

Komaki Industry Festival 2007

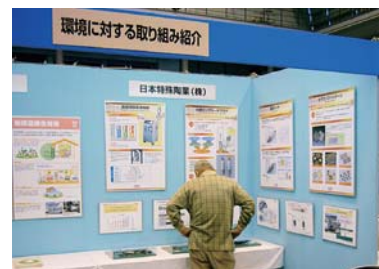
In May 2007 the Komaki Chamber of Commerce and Industry hosted the Komaki Industry Festival 2007. Many whole families came, with total participation of approximately 20,000 people.

We had a booth entitled "Introducing our Environmental Measures" where we introduced our oxygen sensor and small long-reach plug, our environmentally friendly products such as the medical oxygen condenser as well as the state of our initiatives.

The location of the event was close to our Komaki Factory so we also temporarily opened our employee parking lot for use

by people coming to take part in the Festival.

Shin-chan, The earthquake simulation vehicle we donated to Komaki City as part of our 70th anniversary activities in March 2007 was also present and in use.



Komaki Industrial Festival 2007

Mizuho Ward Citizen's Festival

In August 2008 Mizuho Ward, Nagoya City, home to our head office, hosted the 18th Mizuho Ward Citizens Festival, in which we participated as a local supporting business.

At the festival site, Guragura-Go, the earthquake simulation vehicle we donated to Nagoya City as part of our 70th anniversary activities, was available as an activity allowing many families to experience large-scale earthquakes in an earthquake discovery section.



Guragura-Go

Satsuma Town Summer Festival

Satsuma Town, home of our Miyanojo Factory, hosted the Satsuma Town Summer Festival in August 2007. The festival was not held the year before due to natural disaster caused by heavy rains in 2006 in northern Kagoshima Prefecture making this festival the first in two years. The festival featured around 1,000 people dancing in time with the booming sound of Miyanojo Itsutsu Taiko (traditional Miyanojo five drums).

A row of approximately 140 people from the Miyanojo Factory participated, dancing and livening up the festival. There was also a Te-Odori Award for the best Te-Odori (hand dancing) group.



Nittoku Odori Ren

Employees

We shall strive to respect the diversity and individuality of our employees and foster a safe and excellent working environment where they can realize their full potential.

- Based on our corporate philosophy (Management policy) that “We offer a working environment in which each one of us is encouraged to make full use of his or her personality and capability”, we will place emphasis on the cultivation of unique and cooperative human resources.
- We acknowledge that employees are the most important management resource, and will secure nondiscrimination and equal opportunities in employment, provide fair working conditions and establish a personnel system to ensure that people with different qualities can fully realize their own capabilities.
- We will consider the health and safety of employees and provide a comfortable working environment. We will never get involved in the use of forced labor or child labor in any way.

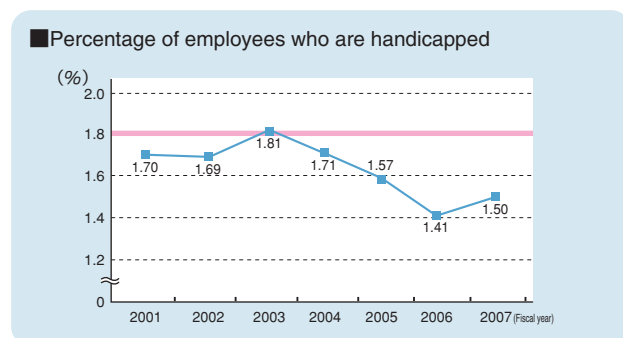
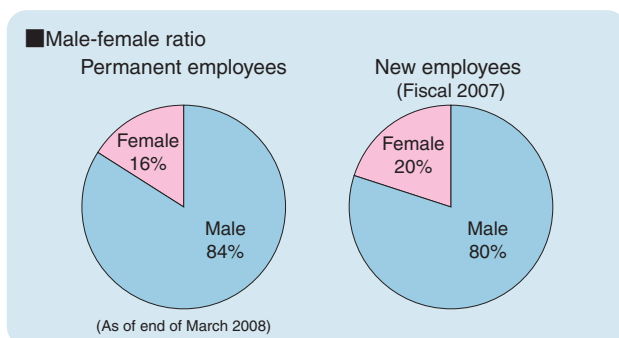
Personnel system

Equal Opportunity

We are working to thoroughly eliminate discrimination based on race, sex, beliefs, handicap and so on in our recruiting and employment.

Our employment of handicapped is below the regulated 1.8%, so are striving to improve our employment practices.

To increase the opportunities for employees with an eagerness to work, we have implemented various systems including: a shift exchange system, an in-house open recruitment system and a female employee late night shift system.



Supporting Ability Development

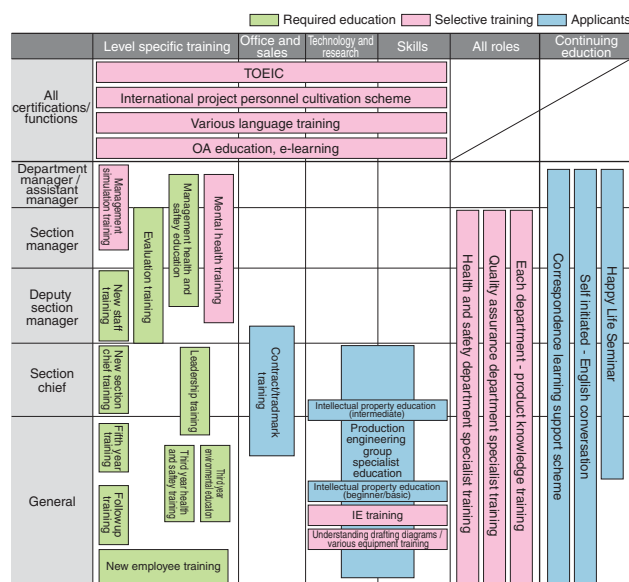
We provide various kinds of education and training including level-specific, function-specific, and continuing education to employees, according to their work content and business environment, so that they can acquire knowledge and skills and pass them on to future generations of our employees.



New employee education



New management training



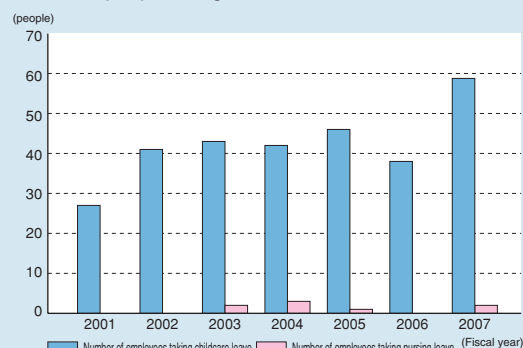
Supporting Simultaneous Pursuits

To help employees who are raising children and caring for family members, we are striving to establish a suitable system and a work environment that allows the simultaneous pursuit of childcare/nursing care and work.

■ Schemes to support childcare

Childcare leave scheme	To the age of 1 year	It is possible to take leave in order to raise children.
Childcare leave extension scheme	To the age of 2 years	It is possible to extend the leave period when no nursery school is available, for example.
Special leave scheme	Until entrance to elementary school	It is possible to acquire nursing leave for up to 5 days a year to nurse a sick or injured child.
Short-time work scheme	Until the end of the month after entering elementary school	It is possible to shorten the working hours per day by 2 hours.

■ Number of people using the leave schemes



Management of Working Hours

To ensure proper management of working hours and prevent excessive work, we have adopted a working hour management system using employee IC cards.

We have also distributed a Working Hour Management Handbook to all our employees and in cooperation with the labor union ensure that Wednesday is observed as a no-overtime day hoping to continue to promote a balanced work life.



Working Hour Management Handbook



IC Card



No-overtime day

Labor and Management Relations

An important mission of labor and management is to contribute to society at large by offering good products and good service. To ensure that both labor and management discharge their responsibilities in an atmosphere of mutual trust and cooperation, and create a better workplace where employees are more eager and active, we periodically hold labor and management gatherings and also labor and management conferences, and deal with a variety of issues.



Labor and management gathering



After Mandatory Retirement

Re-employment system for ex-employees

In 2001, we introduced a system of re-employing retirees of retirement age in order to effectively utilize the knowledge and skills they cultivated throughout their careers. Along with the enforcement of the revised Law concerning the Stabilization of Employment of Elderly Persons in April 2006, we will extend the period of re-employment in phases to age 65.

Happy Life Seminar

Since 1994 we have held Happy Life Seminars (overnight stay with spouses) for employees who have reached the age of 50 or more. This seminar gives them opportunities to think about their life aims in after retirement as well as their health and finances, through lectures and group discussions.



Happy Life Seminar

	(people)	
	Fiscal 2007	Total
Re-employed ex-employees	49	233
Participants in the Happy Life Seminar*	61	1093

*Excluding spouses

Occupational safety and health

Principle and Basic Policy

Principle

To position occupational safety and health as the starting point of business activities with respect for people as a foundation in our activities.

Occupational safety and health policy

- Observe laws and self-standards relating to occupational safety and health.
- Reduce risks and eliminate work-related accidents by sustained improvement of our occupational safety and health management and performance.
- Promote employee understanding of policy, and awareness through training and enlightenment, and widely expand overall participation in occupational safety and health activities.

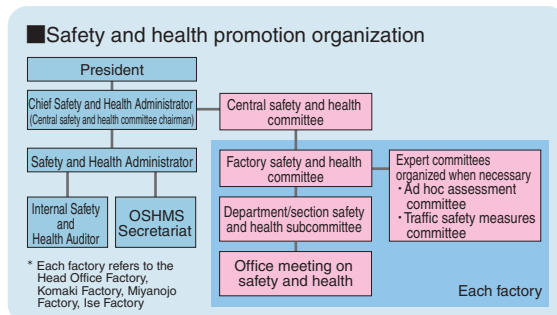
Action Guideline

Come to work in good physical and mental health, and go home at the end of the day with a smile on your face!

Slogan for fiscal 2008

Raise risk awareness and promote accident prevention!

Genjiro Hashimoto
Executive Vice President,
Chief Safety and
Health Administrator



Occupational Safety and Health Management System

To eliminate occupational hazards and create a comfortable working environment, we have constructed an occupational safety and health management system (OSHMS). As a result of having this system subjected to an examination in December 2006, it was confirmed that the system conformed to the OSHMS standards of JISHA (Japan Industrial Safety and Health Association) based on the Occupational Health and Safety Management System of the Health, Labor and Welfare Ministry, and we acquired certification for four factories.

■ Situation concerning acquisition of certification of eligibility

Factory name	Date of approval
Head Office and Head Office Factory	December 11, 2006
Komaki Factory	December 11, 2006
Miyanojo Factory	December 25, 2006
Ise Factory	December 11, 2006



Approval plate



Examination

Targets and Results

We set the following goals for fiscal 2007, however many were not accomplished. For the results of each target please check the next page.

■ Fiscal 2007 target results

1. Elimination of occupational accidents	① Elimination of crushing and striking accidents	×
	② Elimination of accidents caused by scattering	×
2. Improvement of working environment	① Reduction of workplaces in the third and second management categories	×
3. Health promotion	① Improved health management awareness	○
	② Enhanced mental health care	○
4. Enhanced education and enlightenment	① Promotion of safety and health education	○
	② Reinforcing safety and health patrol	○
	③ Promoting voluntary activities at the workplace	○

○ : Accomplished × : Not accomplished

When setting goals for fiscal 2008 we checked the details of the accidents that occurred in fiscal 2007 and made accidents related to chemical handling a target for this year.

■ Fiscal 2008 targets

Elimination of occupational accidents	Elimination of crushing and striking accidents
	Elimination of accidents caused by chemical handling
Improvement of working environment	Reduction of workplaces in the third and second management categories
Health promotion	Improved health management awareness
	Enhanced mental health care
Enhanced education and enlightenment	Promotion of safety and health education
	Reinforcing safety and health patrol
	Promoting voluntary activities at the workplace

1. Elimination of occupational accidents

① Elimination of crushing and striking accidents

The total number of accidents including minor accidents was 22, of which 4 were accidents involving pinching and 3 were impact accidents.

② Elimination of accidents caused by scattering

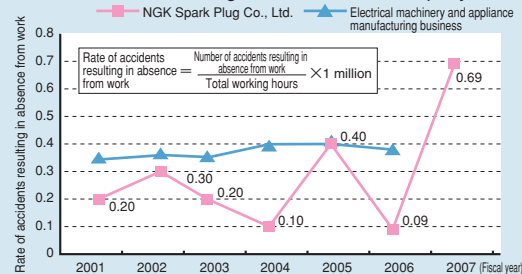
There was one accident due to scattering chemicals. There were two other accidents related to chemicals.

In fiscal 2007 there were many cases of accident leave being taken as a result of actions such as slipping or falling down. To prevent careless accidents we reviewed everyday workplace health and safety activities trying to improve individual awareness.

■ Number of accidents resulting in absence from work (Number of accidents)

2001	2002	2003	2004	2005	2006	2007
2	3	2	1	4	1	8

■ Rate of accidents resulting in absence from work per year



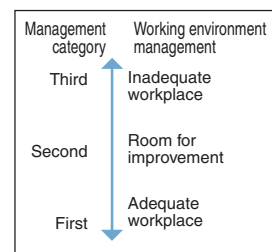
2. Improvement of working environment

① Reduction of workplaces in the third and second management categories

Workplaces that handle organic solvents and specified chemical substances or generate significant noise implement working environment measurement based on the Occupational Safety and Health Law. The result of measurement showed that workplaces deemed third or second management categories were primarily workplaces with loud noise. We are working to control noise by implementing various countermeasures but have been unable to create a noticeable change and are using safety gear to prevent illness.



Working environment measurement



3. Health promotion

① Improved health management awareness

So that all our employees can work with healthy bodies we have set goals to reduce the number of employees with abnormal findings in general health checkups. In fiscal 2006 and 2007 the number of people receiving a blood test increased increasing the ratio of persons with abnormal findings. On the other hand employee participation in health lectures increased to increase employee interest and consciousness of health issues.

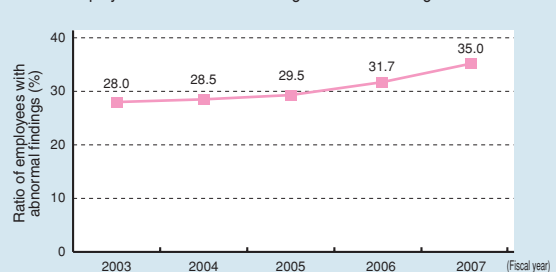
② Enhanced mental health care

To address the issue of mental health the human resources department, environment and safety department, health and insurance union and labor union established a mental health specialist committee. We also hosted training for management.



Mental health training

■ Ratio of employees with abnormal findings as a result of a general health check



4. Enhanced education and enlightenment

① Promotion of safety and health education

We educate employees in line with their experience and position such as new employee, third-year employee, foreman, assistant manager or executive, and also give education on organic solvents, dust and forklifts depending on their job descriptions.

② Reinforcing safety and health patrol

We regularly implement a patrol involving the health and safety committee, occupational health physician and the sanitation manager to better understand the issues we face.

③ Promoting voluntary activities at the workplace

New employees wear a special hat for one year so that more experienced employees can be active in supporting them to prevent injury of the new employees. We also promote the following health and safety standards: KYT (Kiken Yochi Training, or hazard protection training), close call activities, and 5S (Seiri, Seiton, Seiso, Seiketsu, Shitsuke).



Patrol



Section chief training

Civil society

We shall reject all contacts with organizations involved in activities in violation of the law or accepted standards of responsible social behavior.

- We will take a strict stance on pressure from violent civil intervention, and decisive steps in cooperation with law enforcement agencies.

Cultural respect

We shall respect the cultures and the customs of local communities where we do business and strive to manage our activities throughout the world in such a way as to promote and contribute to the development of local communities.

- We will perform our overseas business activities based on mutual trust with our customers, suppliers, employees, etc., and not only comply with the laws of each country but also respect its culture, customs and history.
- We will train to utilize local employees and suppliers in order to be a trustworthy company and a part of local society.

Ceramica e Velas de Ignicao NGK do Brasil Ltda.

Ceramica e Velas de Ignicao NGK do Brasil Ltda. is the overseas branch with the longest history within the NGK Spark Plug Group, celebrating its 50th anniversary in 2009. Throughout that long history we have contributed to the development of the local society.

In September 2007 our ongoing activities were recognized as President Kato received the Ipiranga Order, the highest decoration of the State of São Paulo. Another reason was the donation to the citizens of Mogi City of the old factory site in December 2006.



Decoration Ceremony



Certificate

P.T. NGK Busi Indonesia

P.T. NGK Busi Indonesia is our third production hub in South-East Asia. Since establishment in 1977 this location has been producing Spark Plugs and in May 2007, they celebrated their 30th anniversary. A total of 400 employees participated in a memorial mini-sports tournament, desiring to see greater growth in the future.



Mini-sports tournament



Memorial tree planting

NGK Spark Plugs (India) Pvt.Ltd.

To support growing spark plug demand in India, in 2006 we established NGK Spark Plugs (India) Pvt.Ltd. and in February 2008 we held the Factory opening ceremony. At this event a memorial tree was planted as well as the Indian customary coconut splitting ceremony.



Indian customary coconut splitting ceremony



NGK Spark Plugs India Pvt.Ltd.

Ethics

Management shall exercise leadership in making the letter and spirit of the Code of Conduct integral to everyday business practice, thoroughly implementing the Code of Conduct throughout the Company and inculcating it throughout the Group and its supply chain. To this end, management shall continually improve internal systems while striving to cultivate ethics.

- Our top management will lead by example in the group's code of conduct, and take the initiative in cultivating, establishing and spreading a corporate culture of encouragement for ethical actions.
- Through the enrichment of opportunities for direct communication with employees, etc. and the expansion of in-house education, our top management will strongly encourage each member of NGK Spark Plug Group to be aware of and practice the code of conduct.
- Our ultimate target is the creation and establishment of a united organization with an ethical corporate culture based on the participation of all employees.

Activities for CSR

We believe that one of the most important management issues for fulfilling our corporate social responsibility is to establish and maintain a fair and efficient management system while ensuring healthy and transparent management.

Nov. 1996	Adopted "Corporate Philosophy"
Feb. 1998	Adopted "Corporate Code of Conduct"
Apr. 1998	Established Ethical Committee
Feb. 2003	Adopted "Corporate Ethics Helpline System Operation Guidelines"
Nov. 2004	Revised "Corporate Code of Conduct"
	Published "Code of Conduct Guidebook"
Apr. 2005	Published "Guidelines on the Handling of Personal Information"
Aug. 2005	Adopted "Export Management Regulations"
Jan. 2007	Published "Secrecy Management Guidelines"
Feb. 2007	Adopted "Secrecy Management Regulations"

As our basis stance for having all directors and employees understand and correctly practice the components of our corporate philosophy, namely "Commitment", "Management Policy" and "Action Guidelines", we have established a "Corporate Code of Conduct" which enhances awareness of legal and ethical compliance. By implementing regular internal audits and controls of Export Management Regulations and Secrecy Management Regulations we are working to comply with export regulations and establish a trade secret protection system.



Code of Conduct Guidebook

Corporate Governance

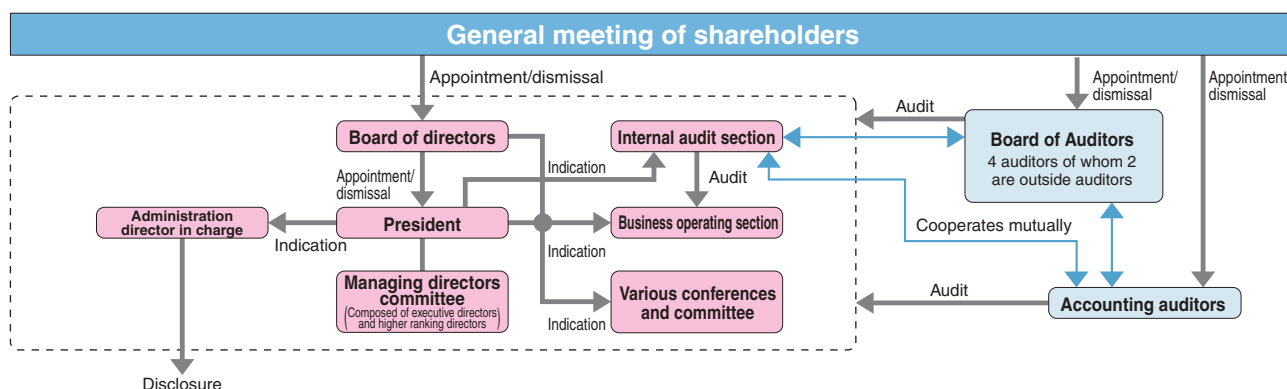
The Companies Act came into effect in May 2006 with stronger maintenance of the corporate internal regulation systems. We have worked to review our business processes and information management to perfect our internal regulation functionality.

The board of directors (standing and temporary) is supervising the business conduct situation of each director as well as deliberating and making decisions on the sections of laws and the articles of incorporation that relate to business operations and other important items related to management. Furthermore, we have a managing directors committee for executive directors and higher ranking

directors to quickly grasp the situation and make adjustments for climate change. The corporate auditor also is present at the meeting of the directors to understand the important issues. The auditor also audits the business operations of the directors through regular exchanges of opinion with the CEO and performing audits of important business locations and affiliates.

NGK Spark Plug Co., Ltd. has not appointed any directors from outside the company* but the directors work to check each other, fulfilling the role of an auditor and we believe we have a properly functioning system of governance.

* as of June 2008



Civil society

8

Cultural respect

9

Ethics

10

Message from a stakeholder

As I read the report I understood the various activities for not only the environment, but also the region and society that we are in. In November, as I toured the Head Office Factory, I was struck by how waste was being carefully divided by type. To continue these kinds of detailed measures requires proper disposition of the employees. Eco Vision includes "education of eco-minded employees," and I was impressed with the fruit the NGK group has borne through ongoing education, hosting conventions, the internal magazines and so on.

Nagoya will host COP10 in 2010. The variety of life is a difficult topic but through cooperation with the local society we work to become a model of activities to the businesses around us.



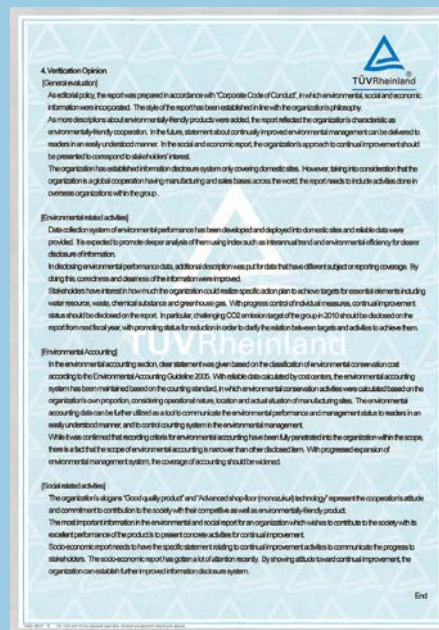
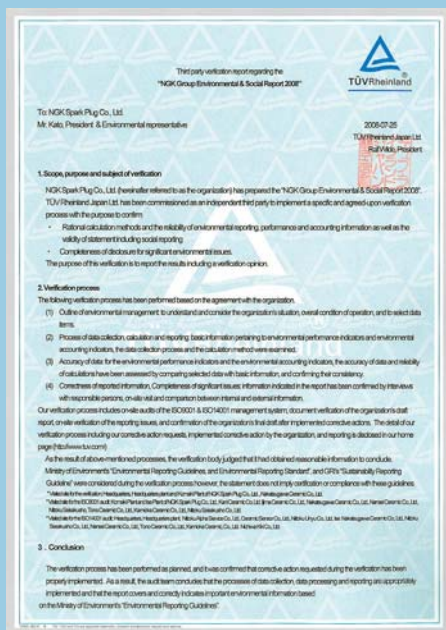
Mitsuaki Tsuge

Fiscal 2007-2008 Environmental Conservation Committee Chief
Nagoya South Rotary Club

Third party examination

The NGK Spark Plug Group prepares this Environmental and Social Report based on our policy of conducting information disclosure in an correct and easy to understand manner. This Environmental & Social Report 2008, based on that policy, underwent third party examination by TÜV Rheinland Japan Ltd. to verify that it expresses information correctly and inclusively.

This inspection verified the following: important environmental information is reported without omission, the data is correctly measured and calculated and the included information agrees with the source materials.



Undergoing a third party examination

This was the fifth time the report has undergone third party examination. Each time we have received improvement requests regarding various aspects of the document to release the best report possible. For the Environmental & Social Report 2008 our lengthening the information related to our environmentally friendly products we well received. On the other hand we received strict direction regarding the clarity of the related areas and the lack of information about Eco Vision 2010. In areas where we received advice regarding omission and insufficient

expression has already been edited. For items that take a longer period of time to accommodate we are working to address those issues and improve the report.



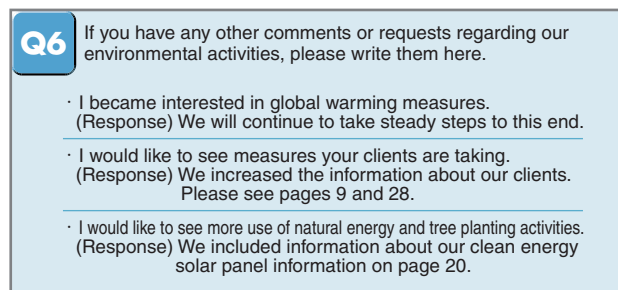
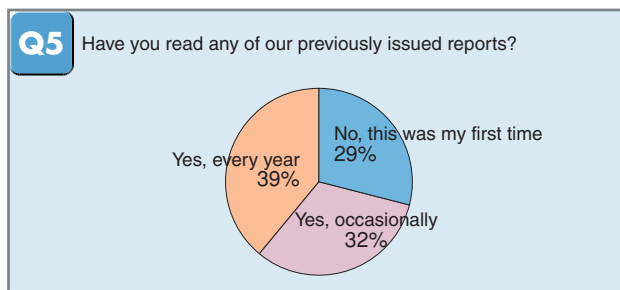
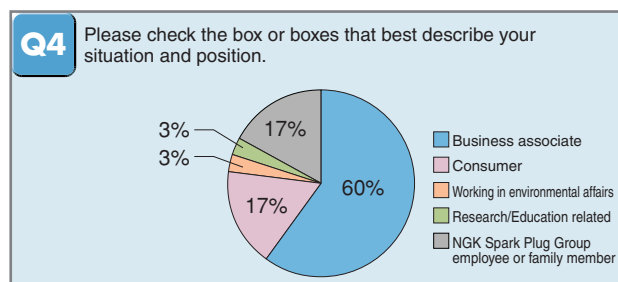
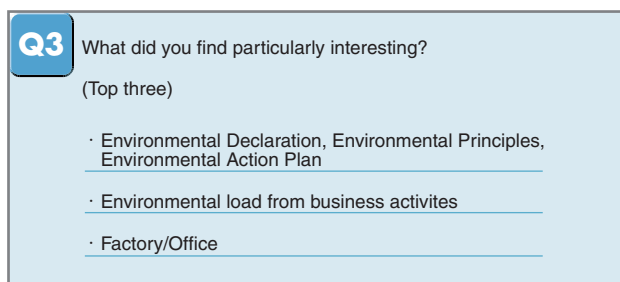
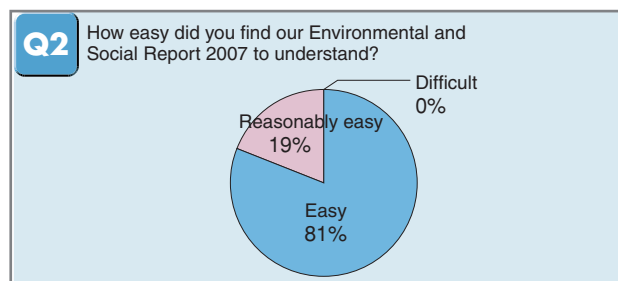
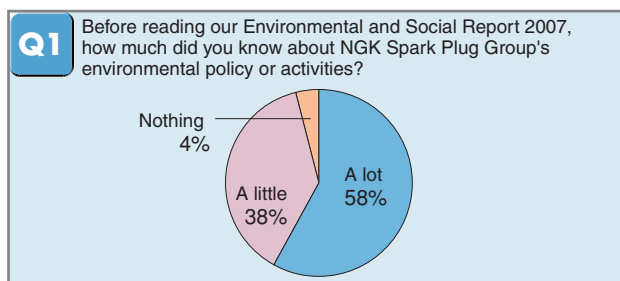
Editorial meeting



Third party examination

Results of questionnaire concerning Environmental and Social Report 2007

Thank you for sending us all your answers to the questionnaire in "Environmental and Social Report 2007" published in fiscal 2007. We take your opinions seriously and are working to implement even more thorough information disclosure.



Request to answer the questionnaire

Thank you for reading through our Environmental and Social Report 2008. For the further improvement of this report, we kindly ask you to fill in the questionnaire.

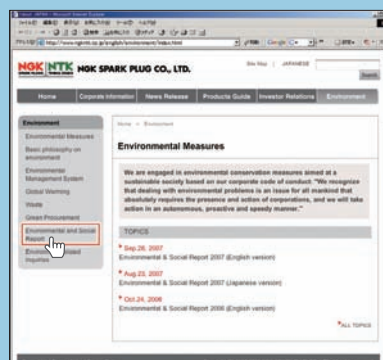
FAX : +81 52-872-5942
e-mail : eco@mg.ngkntk.co.jp

Personal information protection policy

We will only use your personal information to delivery next year's report to you. Even when we publish the results of this questionnaire, we will not show it in a form in which the respondents can be identified.

You can view the following reports on our home page.

- Environmental & Social Report 2008 and the 2000 to 2007 editions
- Each regional Site Report 2008 and the 2006 and 2007 editions (Japanese only)



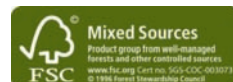
<http://www.ngkntk.co.jp/english/environment/>

Environmental & Social Report 2008

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[During the preparation of this report]

The purchase of the materials (paper, ink, etc.) comprising this report, and also editing and printing related to this report, were carried out by an ISO14001-certified company. Also, the materials (paper, ink, etc.) used do not contain cadmium, lead, hexavalent chromium, mercury, polybromide phenyl (PBB), or polybromide diphenyl ether (PBDE).

Plate making : A CTP (Computer To Plate) method was used. As a result, film and also developing fluid and fixing fluid accompanying the manufacture of the film were rendered unnecessary, thus reducing the consumption of resources and also waste.

Ink : Ink that does not contain VOC (volatile organic compound) was used to minimize the generation of VOC. This ink also conforms to the "voluntary regulations (NL regulations) concerning ink", which are voluntary regulations of the printing ink industry joint association.

Paper : We used paper approved by FSC (Forest Stewardship Council). This contributes to the conservation of the world's ongoing forestation.

Printing : We incorporated a printing method that does not use dampening solutions. No volatile organic compounds (isopropylalcohol) were used.

