NGK SPARK PLUGS TECHNICAL CERAMICS
NGK SPARK PLUG CO., LTD.

NGK Spark Plug Group

Environmental & Social Report

2006

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 sales of spark plugs and related products for internal combustion engines (2) Manufacturing and sales of new ceramics and their applications
Group companies	35 subsidiaries (10 in Japan, 25 overseas), 7 affiliates

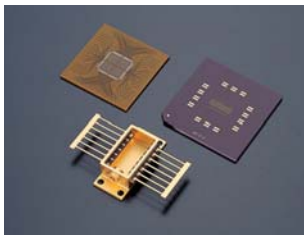
Business areas

Communication media related area

Semiconductor
Electronic components

[Semiconductor components]
- Ceramic IC packages
- Organic IC packages
- Packages for communication devices
- Antenna Switch Module

[Electronic components]
- Dielectric filters
- Dielectric resonators
- Electronic igniter
- Ultrasonic transducers



Automobile related area

Plug
Sensor

[Plugs, related products]
- Spark plugs for automobile and motorcycle
- Spark plugs for marine engines and farm equipments
- Glow plugs for diesel engines
- Igniter plugs for aircraft
- Igniter plugs for rocket
- Resister cable, resister cover

[Sensors]
- Exhaust gas oxygen sensors
- Universal A/F heated exhaust gas oxygen sensors
- Knock sensors

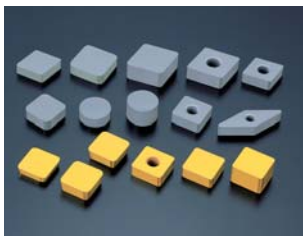
[Other related products]
- Ceramic-based parts for engines
- QGS/QHS

Ceramic related area

Applied ceramic technology
Cutting tool

[Cutting tools]
- Ceramic inserts
- Cermet inserts
- Coated chips
- Micro grain carbide chips

[Technical ceramics]
- Ceramic tube for VCB
- Parts for semiconductor manufacturing equipments
- Ceramic heaters
- Silicon rectifier containers
- Ozonizer
- Bio ceramics
- Oxygen concentrator



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Editorial Policy

This seventh report has been prepared in accordance with our corporate code of conduct with the aim of clearly describing the concepts, mechanisms and results of all our activities.

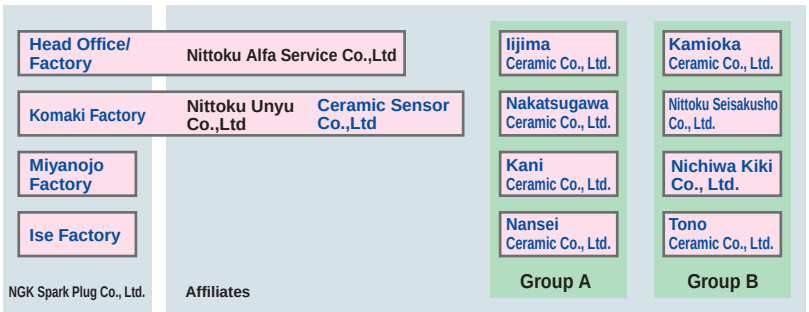
[Reference] "Environmental Reporting Guidelines" issued by the Ministry of the Environment of Japan

Reporting scope

Intended readers	All stakeholders including customers, investors, shareholders, residents of neighboring communities, business associates and employees.
Period covered	From April 1, 2005 to March 31, 2006 * Some other very recent activities and cases are also included.
Reporting scope	Environmental aspects : NGK Spark Plug Co., Ltd. and its 11 domestic affiliate companies 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. as well as the 11 majority-owned domestic subsidiaries other than Tokai Taima Kogu Co., Ltd.



: Block (joint acquisition of ISO14001)

Factories and companies in blue : ① Subsidiaries issuing site reports ② Consolidated subsidiaries

Classification into Groups A and B abolished from FY2006.

* Details of environmental conservation activities are described in the site reports of the respective subsidiaries. Their contact numbers are listed on **p.31**.

Toward the realization of new value

November 2006 marks the 70th anniversary of our founding. We acknowledge that the development of our group would never have been achieved without the trust of our stakeholders, whose advice and support we sincerely appreciate.

With exports representing approximately 80% of sales, NGK Spark Plug Group is seeking respect and popularity from the people of the world based on the principle of product quality and through optimal global production. We recognize the need to keep a good balance between the pursuit of sound economic results, proper information disclosure and ethical and transparent corporate management in order to maintain the trust of the international society.

The phrase “recycling-oriented society” is often heard nowadays, and the environmental activities aimed at creating such a society include the reduction of environmental impact and risk in all corporate behavior through, for example, the development and introduction of eco-friendly products, improvement of productivity, enhancement of resource and energy efficiency, and replacement of environmentally hazardous substances. By nurturing environmental awareness and handing down eco-technologies, our employees can utilize their ingenuity to simultaneously pursue conservational and economic goals. If this enables us to create, propose and realize new value, then society and companies will both benefit.

This year, we have revised our environmental report into an “Environmental and Social Report” which complies fully with our corporate code of conduct. We trust that this report will help you to understand how we strive to remain socially responsible, and we welcome your candid opinions.

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.

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.

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

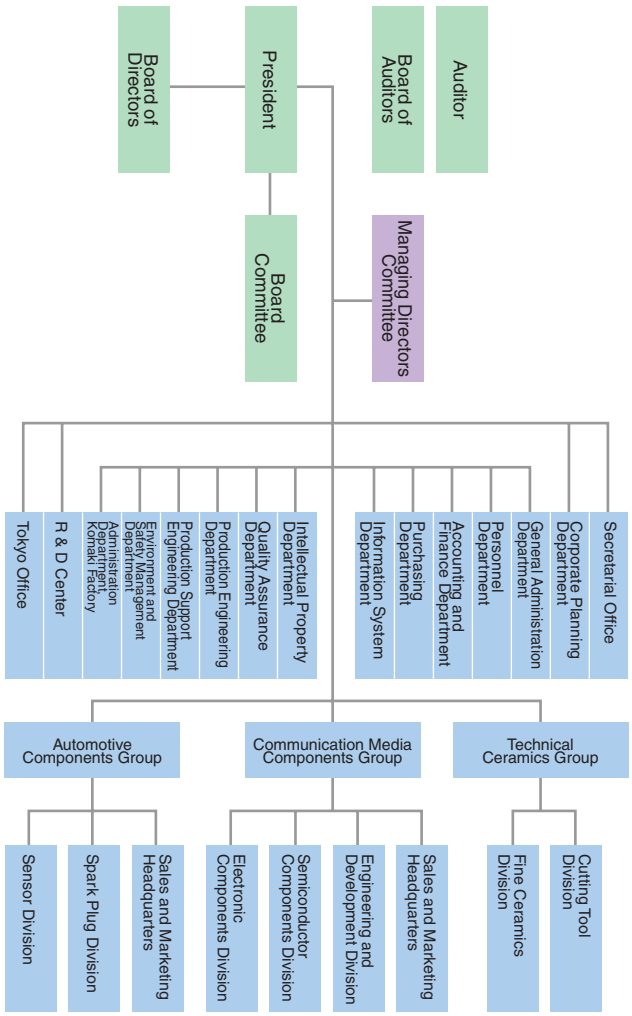
We offer a working environment in which each one of us is encouraged to make full use of his or her personality and capability. With all our power we are dedicated to pursue management based on trust and confidence.

Action guideline

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

Adopted in November 1996

Organization



Corporate code of conduct

NGK Spark Plug Group will behave with social decency in accordance with the following ten principles in order to put into practice our corporate philosophy expressed in our slogan:
"Contributing to the people of the world by offering new value that deepens mutual trust and looks to the future."

1. 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.
2. We will apply our best technology and accumulated experience in order to provide socially useful and safe products and services that satisfy consumers and customers and gain their trust while giving due consideration to the protection of individual data and customer data.
3. We will perform business transactions properly based on fairness, transparency, and free competition. We will also maintain healthy and correct relations with governments and public administrations.
4. We will place importance on communication not only with stockholders but also with the wider society, and release corporate data through our everyday public relations activities
5. We recognize that dealing with environmental problems is an issue for all mankind that absolutely requires the presence and action of corporations, and we will take action in an autonomous, proactive and speedy manner.
6. We will perform social contribution activities as a "good corporate citizen".
7. We will respect the diversity and individuality of our employees and provide them with a safe and pleasant working environment that utilizes their abilities.
8. We will staunchly oppose antisocial movements and organizations that pose a threat to the order and safety of civil society.
9. We will respect local cultures and customs during our international corporate activities and carry out business that contributes to the growth of host countries.
10. Our top management will lead by example in the spirit of these principles, striving to cultivate a philosophy of logic by disseminating them throughout the company, publicizing them among group companies and customers, and incorporating them into the company structure.

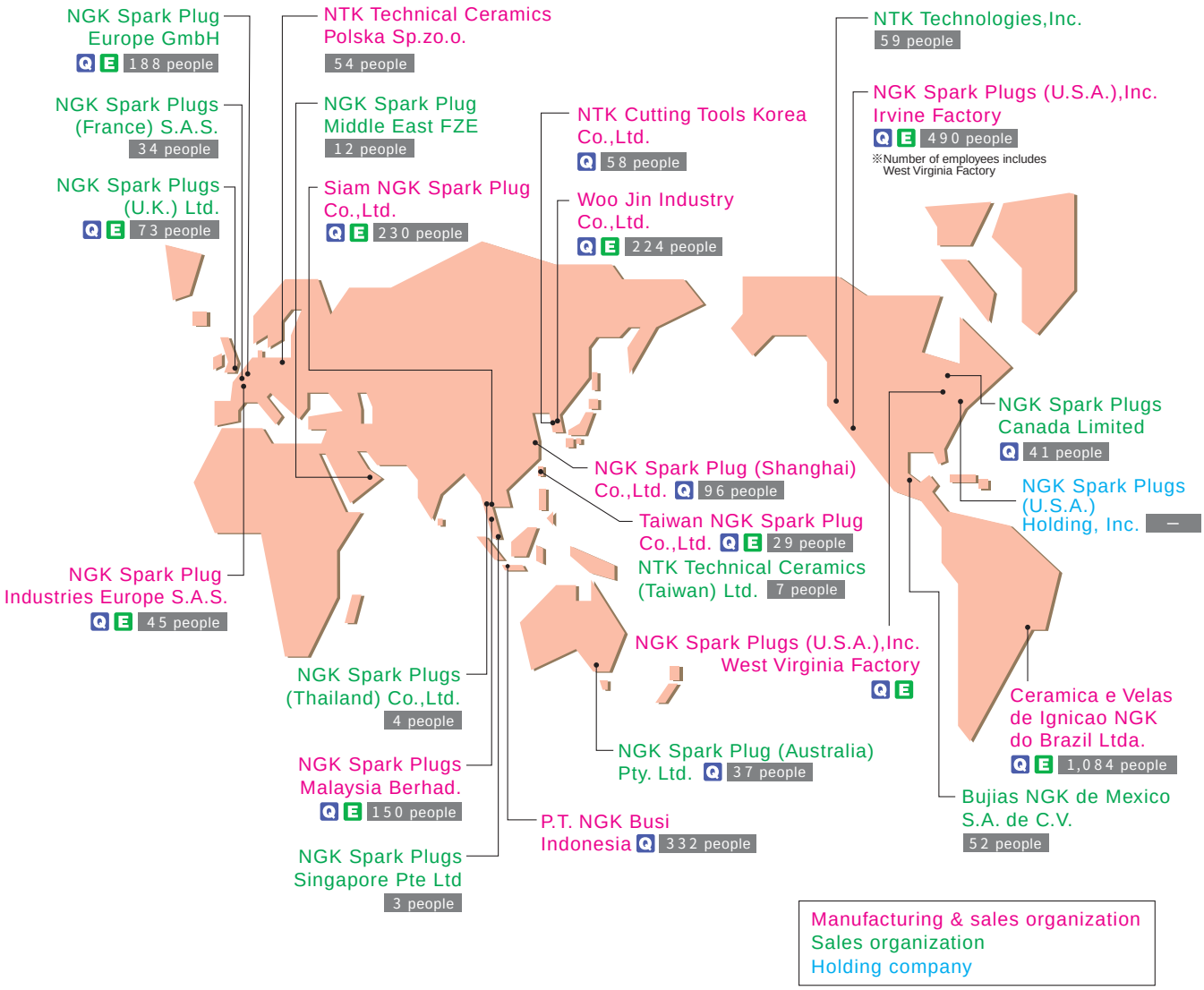
Revised November 2004

chapter 1

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.

- 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



Q·····QMS (ISO 9001, TS 16949, etc.) certified
E·····EMS (ISO 14001) certified
people···Number of employees

QMS/EMS certification status as of the end of May 2006
Number of employees as of the end of December 2005

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

NGK Spark Plugs (U.S.A.), Inc. West Virginia Factory

Ceramica e Velas de Ignicao NGK do Brazil Ltda.

NGK Spark Plug Industries Europe S.A.S.

NGK Spark Plugs Malaysia Berhad.

Siam NGK Spark Plug Co.,Ltd

P.T. NGK Busi Indonesia

Taiwan NGK Spark Plug Co.,Ltd.

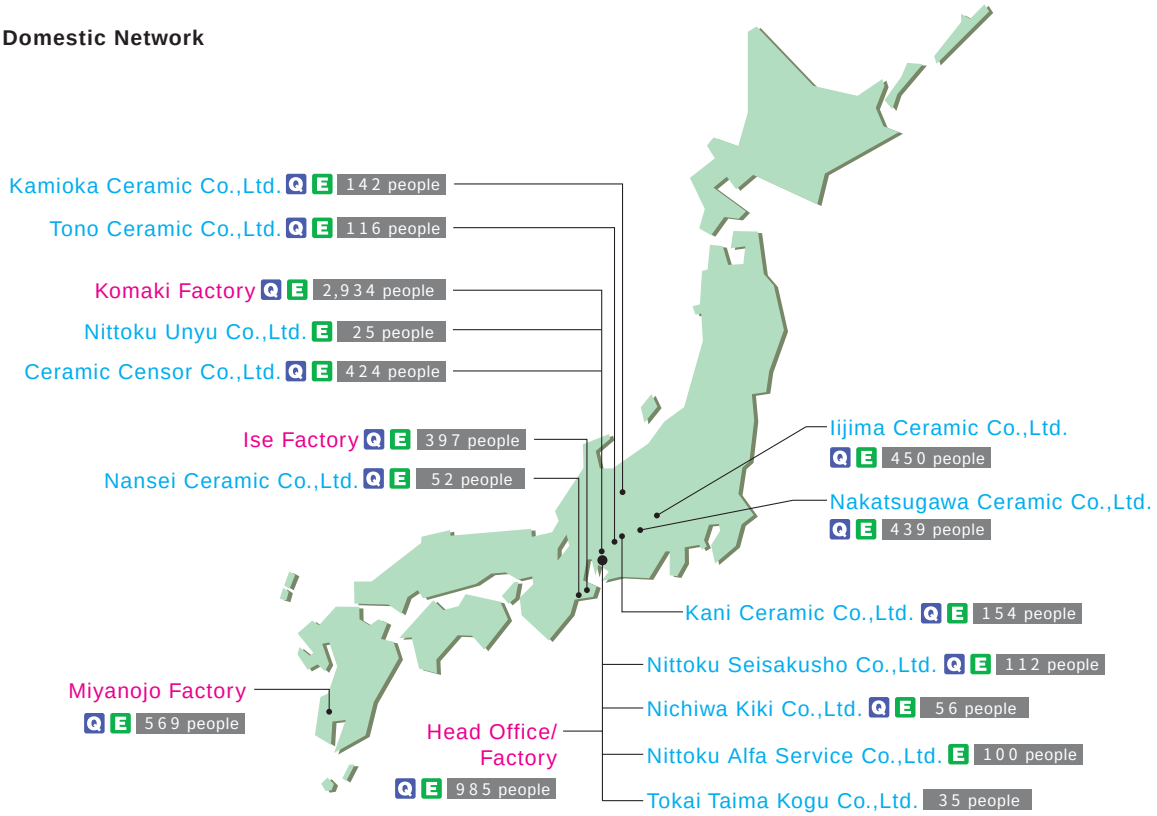
NGK Spark Plug (Shanghai) Co.,Ltd.

Woo Jin Industry Co.,Ltd.

NTK Cutting Tools Korea Co.,Ltd.

NTK Technical Ceramics Polska Sp.zo.o.

■Domestic Network



Q·····QMS (ISO 9001, TS 16949, etc.) certified
E·····EMS (ISO 14001) certified
people···Number of employees

QMS/EMS certification status as of the end of May 2006
Number of employees as of the end of December 2005

chapter 2

We will apply our best technology and accumulated experience in order to provide socially useful and safe products and services that satisfy consumers and customers and gain their trust while giving due consideration to the protection of individual data and customer data.

- 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

Under its corporate philosophy, NGK Spark Plug Group has a global viewpoint and spirit of "manufacturing one step ahead" to enhance every aspect of our business quality, including improving productivity and making our product and business structure more sophisticated through the participation of everyone concerned. NGK Spark Plug Group also aims to improve customer satisfaction and contribute to the development of the society.
Celebrating its 70th anniversary in FY2006, NGK Spark Plug Group established a new basic quality policy this February in order to enhance the quality of "people, products and mechanisms" from the original concept of TQM, and fulfill its corporate social responsibility.

Corporate Quality Policy

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

Quality audit

Customer First
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 share common views on problems and solve them through collective efforts.

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.

Risk Management

Business activities involve many risks such as natural disasters, serious accidents and economic downturns. We recognize these risks, and strive to prevent those that can be foreseen while preparing adequate responses to those that cannot.

Preparedness for large-scale earthquakes

NGK Spark Plug Group has offices in Aichi Prefecture and other parts of the Tokai region, many areas of which are designated as Areas with Intensified Measures against Earthquake Disaster in the event of a Tokai earthquake.

There is also concern about a combined Tonankai and Nankai earthquake, so we have established countermeasures against large-scale earthquakes to ensure the safety of our employees and minimize damage to our business activities.

Evacuation drill at Head Office Factory

Protection of personal information

In April 2005, the Personal Information Protection Law was fully enforced. At NGK Spark Plug Group, we also protect our customers' personal information through internal briefings, etc. that fully instruct employees on how to handle such important data. For customers, we have published our "Guidelines on Handling Personal Information" on our website.

Internal briefing

http://www.ngkntk.co.jp/policy/

Disclosure of product information

To publicize the products and latest technologies of NGK Spark Plug Group to customers, we have made presentations at numerous trade shows. In FY2005 too, we received many visitors at various such exhibitions and were able to respond to their questions and requests. Information on our products and technologies is also provided in our website and catalogs.

Date	Trade shows
April 6-8	International Ceramic Exhibition 2005
May 21-23	Automotive Engineering Exposition 2005
October 19-22	Mechatronics Technology Japan 2005
October 22-November 6	Tokyo Motor Show 2005
November 9-11	Microwave Workshops and Exhibition 2005
December 1-9	SEMICON Japan 2005
January 13-15	Tokyo Auto Salon 2006
February 10-12	Osaka Auto Salon 2006
March 10-12	Osaka Motorcycle Show 2006
March 31-April 2	Tokyo Motorcycle Show 2006

Tokyo Motor Show 2005

SEMICON Japan 2005

NGK Spark Plugs Plug Studio

There are many different spark plug part numbers, and the type and required quantity differ depending on the model of the car in which the plug is used. The Plug Studio is for customers who want to replace plugs by themselves, allowing them to search for suitable plugs.

http://www.ngk-sparkplugs.jp

Automobile components

Communication media components

Technical ceramics

chapter 3

We will perform business transactions properly based on fairness, transparency, and free competition. We will also maintain healthy and correct relations with governments and public administrations.

- 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.

Nittoku Suppliers Association

The Nittoku Suppliers Association is composed of suppliers delivering raw materials, equipment, parts, etc. to NGK Spark Plug Group. The objective is to promote efficient management and improve productivity through the exchange of information between members. The association also organizes workshops and sessions for presenting examples of improvement on an as-needed basis, and seeks the concurrent progress of NGK Spark Plug Group and its suppliers.

Top management workshop

Session for presenting examples of improvement

Column

SRI (Socially Responsible Investment)

SRI is based on a comprehensive evaluation that takes into account not only profitability and growth expectation but also social, ethical and environmental aspects such as legal compliance, employment, human rights, consumer response, and contribution to society and the community, in order to seek a steady return. SRI funds such as eco funds are also growing in Japan. NGK Spark Plug Group is included in an SRI index and various funds, and will continue to strive to be a trustworthy company.

Inclusion in major SRI-related stock indices

Name	Publisher
FTSE 4 Good Global Index	FTSE International (UK)

(as of May 2006)

[FTSE 4 Good Global Index]

An index developed by FTSE, a UK-based company, for SRI in 2001. Companies are rated on their performance in the three key areas of environmental sustainability, social relations and human rights.

Inclusion in major SRI/eco funds

SRI fund

Name	Investment trust company	
Eco Balance (Umi to Sora)	Sumitomo Mitsui Asset Management	(September 2005)
Eco Fund	DLIBJ Asset Management	(October 2005)
Mitsubishi UFJ SRI Fund (Family Friendly)	Mitsubishi UFJ Asset Management	(November 2005)
AIG-SAIKYO Japan CSR Fund (Suiren)	AIG Global Investment Corp.	(December 2005)
Rainbow Fund (Global Environment Fund)	Nomura Asset Management	(February 2006)
AIG/Hirogin Japan CSR Fund (Class C)	AIG Global Investment Corp.	(March 2006)
AIG/Resona Japan CSR Fund (Seijitsu no Mori)	AIG Global Investment Corp.	(March 2006)

chapter 4

We will place importance on communication not only with stockholders but also with the wider society, and release corporate data through our everyday public relations activities.

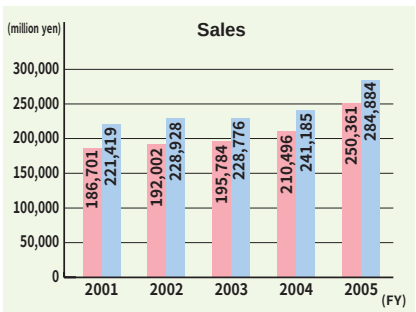
- To enhance our credibility in Japan and overseas, we seek to practice “transparent management” by disclosing information on our business and financial performance as well as other everyday actions, including environmental activities, via our website and other media.
- In order to respond to the trust 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.

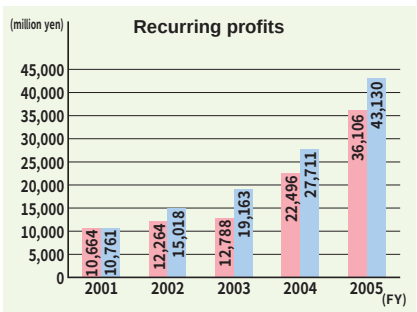
Financial Data

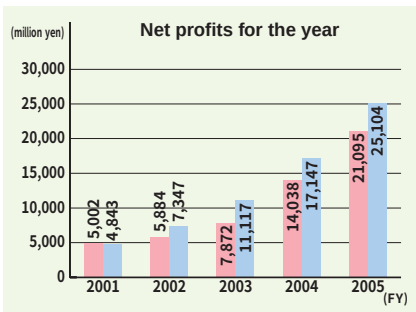
(Account settlements as of March, 2006)

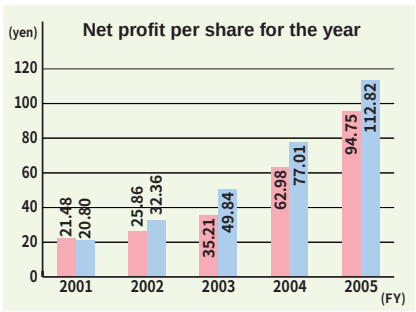
	Non-consolidated	Consolidated
Sales (million yen)	250,361	284,884
Recurring profits (million yen)	36,106	43,130
Net profits for the year (million yen)	21,095	25,104
Net profits per share (yen)	94.75	112.82
Number of employees (people)	5,106	9,815

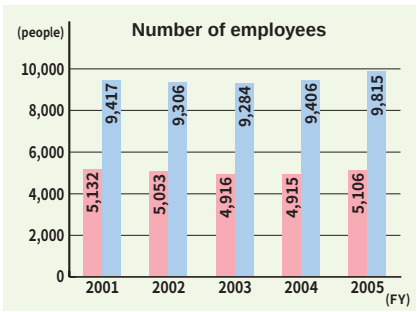
* Number of employees as of March 2006

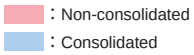






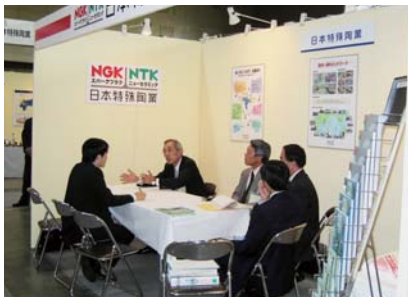






IR Activities

NGK Spark Plug Group provides business information such as business content, performance and stock prices to shareholders and investors, while also holding IR events to directly answer their questions. In FY2005 too, we participated in company guidance seminars and two events for public investors, where we received various comments and questions from many visitors.



Nagoya Stock Exchange IR Expo 2005

Nomura Asset Management Fair 2005

chapter 5

We recognize that dealing with environmental problems is an issue for all mankind that absolutely requires the presence and action of corporations, and we will take action in an autonomous, proactive and speedy manner.

- 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 which can contribute to solutions for environmental problems.
- We will proactively develop responses to environmental issues based on our corporate philosophy (or action guideline): “Ever onward! Always mindful of what is the best course, we swiftly put it into action.”

Material balance

Business sites in Japan

Input

Type	Category	Business sites in Japan
Energy	Purchased electricity	542,187 kwh
	Gas	7,440 m^3
	LPG	120 Kg
	Gasoline	150 KL
Paper	Photocopy paper	7.1 tons
Water	Tap water	3,974 tons

Output

Type	Category	Business sites in Japan
CO_2 from energy consumption	Office	198 tons
	Transportation	348 tons
Waste	Recycled waste	11.3 tons
	Landfill/burning disposal	3.2 tons
Wastewater	Wastewater	3,974 tons

• Factors used to calculate CO_2

Japan Auto Parts Industries Association (2001)

Category	CO_2 conversion factor
Purchased electricity	0.330 kg-CO_2/kWh
Gas	2.558 kg-CO_2/m^3
LPG	3.007 kg-CO_2/kg
Grade A crude oil	2.712 kg-CO_2/L

Guideline to Methods of Calculating Emissions of Greenhouse Gases from Business Sites (Ministry of the Environment)

Category	CO_2 conversion factor
Gasoline	2.32 kg-CO_2/L
Diesel oil	2.62 kg-CO_2/L

- Not including energy consumption and CO_2 emissions due to transportation outsourcing.
- For some operation sites that have no installations to measure discharged volume, the wastewater volume is taken as the combined volume of tap water and well water.

INPUT

Energy

Purchased electricity, Gas, LPG and Grade A crude oil : Use in production
Gasoline and Diesel oil : Use in tests and transportation

Classification	Non-consolidated	NGK Spark Plug Group
Purchased electricity	211,710,000 kWh	329,670,000 kWh
Gas	14,280,000 m^3	15,130,000 m^3
LPG	4,228 tons	8,894 tons
Grade A crude oil	1,883 KL	1,883 KL
Gasoline	819 KL	836 KL
Diesel oil	88 KL	181 KL

Paper

Paper : Use of photocopy paper, packaging materials, etc. (estimated)

Classification	Non-consolidated	NGK Spark Plug Group
Paper	2,312 tons	2,609 tons

Main raw materials

Ceramic materials and metals : Purchased amount
Reused elements : Reuse of ceramic materials

Classification	Non-consolidated	NGK Spark Plug Group
Ceramic materials	———	14,065 tons
Metal materials	———	21,285 tons
Reused elements	8,111 tons	11,980 tons

Other materials/auxiliary materials

Plastics, chemicals, oils, other materials and other gases : Use in different divisions (estimated)

Classification	Non-consolidated	NGK Spark Plug Group
Plastics	539 tons	1,830 tons
Chemical substances	8,152 tons	10,960 tons
Oils	943 tons	1,022 tons
Other materials	884 tons	1,146 tons
Other gases	11,514 tons	15,101 tons

Environmental load from business activities

The material balance of NGK Spark Plug Group is shown below, indicating the resources and energy used for our business activities, manufactured products and discharged waste. Recognizing the input and output of our business activities helps us to obtain an overall picture of environmental impact.

Water

Tap water : Use of tap water and industrial water
Well water : Use of groundwater
Recycled water : Reuse of water on-site after purification

Classification	Non-consolidated	NGK Spark Plug Group
Tap water	801,684 tons	994,442 tons
Well water	935,164 tons	1,067,387 tons
Recycled water	1,150,196 tons	1,288,728 tons

CO_2 from energy consumption

Production, test, transportation
CO_2 emissions from energy consumption (electricity, gas, etc.)

Classification	Non-consolidated	NGK Spark Plug Group
Production	124,189 tons	179,310 tons
Test	2,018 tons	2,018 tons
Transportation	149 tons	433 tons

PRTP-regulated substances

Air and water
Emissions of materials reported in different areas into the air and water

Classification	Non-consolidated	NGK Spark Plug Group
Air	13 tons	130 tons
Water	0.3 tons	1.0 tons

Waste

Recycled waste
Amount of waste disposed of by recycling contractors (including the waste sold)

Landfill/incineration
Amount of waste used as landfill or incinerated by contractors

Classification	Non-consolidated	NGK Spark Plug Group
Recycled waste	21,168 tons	23,678 tons
Landfill/burning disposal	121 tons	401 tons

Wrapping/ packaging materials

Plastics, paper and cardboard
Use in different shipping divisions (estimated)

Classification	Non-consolidated	NGK Spark Plug Group
Plastics	689 tons	981 tons
Paper	1,421 tons	1,432 tons
Cardboard	1,107 tons	1,850 tons

Wastewater

Wastewater
Amount discharged to sewage or public waters

Classification	Non-consolidated	NGK Spark Plug Group
Wastewater	1,146,763 tons	1,397,836 tons

Product shipment

Products
Amount shipped from different divisions

Classification	Non-consolidated	NGK Spark Plug Group
Product	———	30,666 tons

OUTPUT

chapter 5

Basic philosophy on environment

Environmental declaration

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.

(Revised April 2004)

Environmental action plan and results

Achieved : ○ Unachieved : × Ongoing : △

	Item	Targets for 2004 – 2005	Achievement	Page No.
Management	Environmental management system	Achieve 2004-2005 targets ahead of Eco Vision 2010	○	—
		Promote certification of Japanese offices and overseas affiliates	○	15
		Promote combination with QMS and OHSMS	○	—
	Environmental operations	Introduce eco-efficiency for warming	○	18
		Investigate and research Kyoto mechanism	○	—
		Promote construction of environmental management data system (*1)	○	—
	Environmental accounting	Introduce environmental accounting to Group B <completed in FY2004>	○	17
		Investigate and research material flow cost accounting	○	—
	Environmental risk	Zero environmental accidents and environmental complaints	0 cases	16
	Compliance	Zero cases of environmental law violation	2 cases	16
		Construct CSR management system	○	40
Factory/ Office	Energy	Reduction of 1% in CO_2 emissions (compared with FY2001) [FY2005] Manufacturing divisions emissions per unit of resources down 4% Non-manufacturing divisions emissions down 4%	Manufacturing divisions ○ Non-manufacturing divisions ×	19
		Introduce clean energy	○	20
	Waste matter	Achieve zero emissions (min. 98% rate of effective utilization) [FY2005] Groups A and B	×	21
		Reduce waste emissions (compared with FY2003) [FY2005] NGK Spark Plug Total emissions down 10% Groups A and B Total emissions down 5%	×	21
		Investigate and research the reuse and recycling of used products	△	—
		Study changing to internal treatment of waste matter	○	—
	Water resources	Reduce use of tap water and well water [FY2005] NGK Spark Plug Total used down 10% Groups A and B Total used down 5%	×	22
	Green purchasing	Improve eco-efficiency of office supplies etc. [FY2005] 90%	○	22
	Hazardous substances	Reduce emissions of substances subject to PRTR law [FY2005] NGK Spark Plug Total emissions 8.3 tons (down 50% on 2002) Groups A and B Total emissions per unit of resources (down 20% on 2001)	×	24
		Disuse all substances harmful to the ozone layer end of 2005	×	24
		Not use prohibited substances ranked as hazardous	△	24
Products	Eco-design	Spread LCA procedures throughout company	○	—
		Introduce eco-efficiency	△	—
		Introduce environmental labels	×	—
	Green procurement	Introduce green supplier system	○	23
	Distribution	Centralize transportation fuel management	△	20
		Promote replacement with eco-cars	○	22
Communication	Disclosure	Social environmental reports Issue annually	○	29
		Site reports Issue annually	○	29
		Hold stakeholder meetings	○	29
		Promote acceptance of environmental visits to factories	○	29
		Exchanges with NGO and NPO organizations	△	—
	Community	Continuous implementation of regional clean-up activities	○	29
		Participate in environmental exhibitions and environment-related events	○	29
	Natural environment	Promote greening of factories	○	29
Mind	Education and instruction	Promote introduction of environmental education programs	○	—
		Environmental conferences Hold annually	○	30
		Environment page in company magazine Include every month	○	30

*1: With the start in FY2004 of preparations for the introduction and operation of an environmental management information system, the target was revised from “promoting establishment” to “introduction”.

(drawn up in April 2004)

Environmental policies

Management
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.

Factory/office
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.

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

Communication
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.

Mind
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.

(Revised April 2004)

NGK Spark Plug Group Eco Vision 2010 and targets for FY2006

	Item	Eco Vision 2010	Targets for fiscal 2006
Management	Environmental management system	Sharing of environmental policy by related companies including overseas	Support ISO14001 certification of overseas automotive related production sites
			Formulate NGK Spark Plugs' global environmental declaration and environmental policy
		Construction of total management system (QMS, EMS, OSHMS)	Reconfirm relevant legislation centrally and at sites
			Revise environmental impact assessment standards (including indirect departments)
			Reexamine expert committees and panels and form them into a smoother functioning organization
			Obtain OSHMS accreditation
	Environmental operations	Centralization of environmental management data control	Establish rules for the use of the environmental management information system in the regional secretariats and conduct stable operations
			Start operating a system of collecting environmental data from overseas offices
		Promotion of CSR management	Establish NGK Spark Plugs' environment related standards
	Environmental accounting	Integration of environmental accounting and management accounting	Revise NGK Spark Plugs guidelines
			Create tool for converting environmental effect to amount of money
Factory/ Office	Prevention of global warming	Total greenhouse gas emissions in Japan of 150,000 tons or less (10% down on 2001)	Develop and implement GHG reduction program
			Reduction targets NGK Spark Plug : 5,700 tons Affiliated companies : 1,891 tons
	Effective use of resources	Efficient use of water resources	Reduction targets NGK Spark Plug : 100,000m³ Affiliated companies : 13,800m³
		EPR (extended producer responsibility) operations	Establish methods for recycling used products
		Achievement of zero emissions by related companies including overseas	Check current state of industrial waste at overseas manufacturing locations
		Reduction of waste emissions	Reduction targets NGK Spark Plug : 4,744 tons Affiliated companies : 122 tons
			Promote volume reduction of liquid waste
		Reduced environmental load due to waste	Study recycle residue of waste from each site that has undergone commissioned treatment
	Hazardous substances	Total 36 tons of PRTR emissions (80% down on 2002)	Complete HCFC225 substitution
			Reduce VOC emissions
		Control of environmental pollutants	Carry out uniform control with MSDS at NGK Spark Plug
			Establish standards for environmental pollutant auditing
Products	Eco-design	Eco-friendly design and product creation	Hold LCA study sessions and LCA evaluation of all departments' products
	Green procurement	Green supplier system of identification and registration of all our business associates	100 companies (expand toward mainly raw material and parts manufacturers)
	Distribution	Construction of efficient distribution system	Study cooperative transport and modal shift
Communication	Disclosure	Disclosure of clear environmental data	Release environmental news items and topics frequently on Internet
		Continuous issue of CSR reports	Issue social environmental reports
	Community	Support for and participation in NGO and NPO activities	Support and participate in NGO and NPO activities
	Natural environment	Promotion of nature conservation and social contribution	Continue to participate in community environmental events, etc.
Mind	Education and instruction	Thorough education of eco-minded employees	Internally publish environmental education materials that can be used when needed
			Build environmental education system
		Reflection of environmental performance in business evaluation	Campaign for implementing energy conservation proposals

(Revised April 2006) (Established April 2006)

Environmental management system

NGK Spark Plug Group is encouraging its business sites to acquire ISO 14001 certification, the international standard for environmental management systems (EMS), in order to promote its environmental management. Joint certification for four NGK Spark Plug factories was obtained in December 2000, and 11 of our domestic consolidated subsidiaries were included in the expansion of the joint certification by January 2004. We are pursing uniform management to share common goals and information within the whole group. In addition, nine of our overseas consolidated subsidiaries have acquired certification as of June 2006, and the ratio of our worldwide organizations with ISO 14001 certification has exceeded 92% in terms of the number of employees.

Acquisition of ISO 14001 certification

		Name of factories and companies	Timing of certification	Certification organization
NGK Spark Plug	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 Seisakusho Co.,Ltd.	'04.1	TÜV Rheinland Japan Ltd.
	6	Nittoku Unyu Co.,Ltd.	'00.12	
	7	Nichiwa Kiki Co.,Ltd.	'04.1	
	8	Kamioka Ceramic Co.,Ltd.	'04.1	
	9	Kani Ceramic Co.,Ltd.	'02.12	
	10	Iijima Ceramic Co.,Ltd.	'02.12	
	11	Nittoku Alfa Service Co.,Ltd.	'99.8	
	12	Nakatsugawa Ceramic Co.,Ltd.	'02.12	
	13	Tono Ceramic Co.,Ltd.	'04.1	
	14	Nansei Ceramic Co.,Ltd.	'02.12	
	15	Ceramic Censor Co.,Ltd.	'00.12	

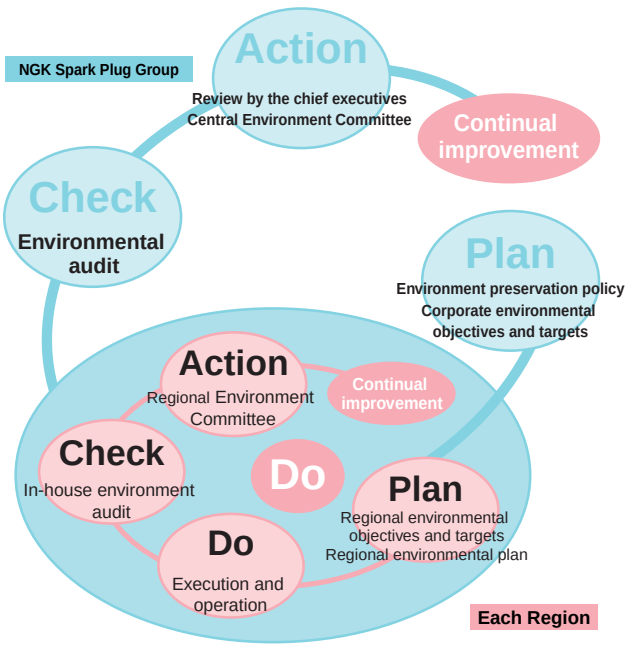
		Name of factories and companies	Timing of certification	Certification organization
Overseas	16	NGK Spark Plugs (U.S.A.),Inc. WV Factory	'00.7	TUV Rheinland of North America, Inc.
	17	NGK Spark Plugs (U.S.A.),Inc. IRV Factory	'00.8	
	18	NGK Spark Plugs (U.K.) Ltd.	'01.12	BSI (British Standard Institute)
	19	Taiwan NGK Spark Plug Co.,Ltd.	'06.4	SGS
	20	NGK Spark Plug Industries Europe S.A.S.	'00.5	AFAQ
	21	Ceramica e Velas de Ignicao NGK do Brazil Ltda.	'01.12	ABS Quality Evaluations
	22	NGK Spark Plug Europe GmbH	'04.11	TÜV Industrie Service GmbH
	23	NGK Spark Plugs Malaysia Berhad.	'06.3	SIRIM QAS
	24	Siam NGK Spark Plug Co.,Ltd.	'02.11	RWTÜV Thailand Ltd.
	25	Woo Jin Industry Co.,Ltd.	'05.4	kfq (Korean Foundation for Quality)

System operation

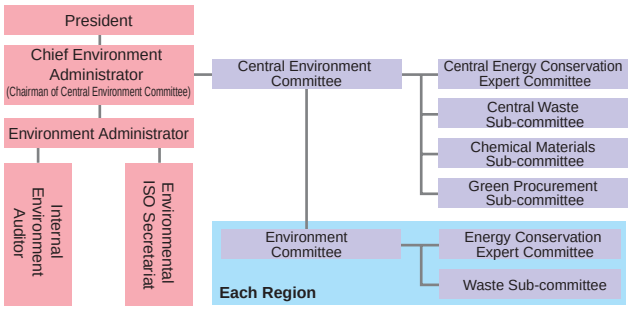
NGK Spark Plug Group is establishing an EMS based on the participation of all employees throughout the group as well as in each region.

As the supreme decision-making bodies, the Central Environmental Committee and respective regional environmental committees are responsible for checking the progress toward objectives and targets, and for identifying and improving problems. An internal environmental audit is conducted annually to inspect the status of the system structure and compliance with laws and voluntary standards. We are also striving to enhance the awareness of our internal environmental auditors and promote exchanges between different operation sites through activities such as auditors visiting and auditing other regions.

In this way, we operate a PDCA (Plan-Do-Check-Action) cycle throughout the group and in each region (factory).



Environmental Activity Promotion Organization



* "Each Region" means the Head Office Region, Komaki Region, Miyanojo Region, Ise Region and affiliates.

Number of ISO14001 auditors

(people)

	NGK Spark Plug	Affiliates
ISO14001 assistant examiners	9	1
ISO14001 Internal auditors	274	155

Central Environmental Committee

Education of internal auditors

Environmental risk

Business activities involve various environmental risks, which we are making efforts to reduce through proper management on a regular basis. To deal with the risks of air and water pollution, we have concluded an agreement on pollution control with municipalities and implemented self-regulation that is stricter than the law, with which we also comply.

Soil survey

Prior to the construction of a new plant building at Komaki Factory, we conducted a voluntary soil survey to confirm there was no contamination.

PCB control

The Head Office Factory, Komaki Factory and Nittoku Seisakusho store waste containing PCBs. While following procedures based on the Law Concerning Special Measures Against PCB Waste, we continue strict control right up until the stored PCB waste treatment is properly completed under the national PCB waste treatment program.

* PCBs: polychlorinated biphenyls

Drill to practice emergency procedures

To prepare for emergency situations such as earthquake and fire, we hold drills that fit the type of business.

Compliance

To maintain business activities, it is essential to properly understand the main purport of many relevant environmental laws and comply with them. While always doing our best to comply with the laws, if any unavoidable violation or complaint occurs, we will take preventive steps through the ISO 14001 system.

NGK Spark Plug

	2003	2004	2005
Violations	0	0	1 ※
Complaints	0	4	0

※Komaki Factory: The BOD level in the integrated drains temporarily exceeded the value agreed on with Komaki City.

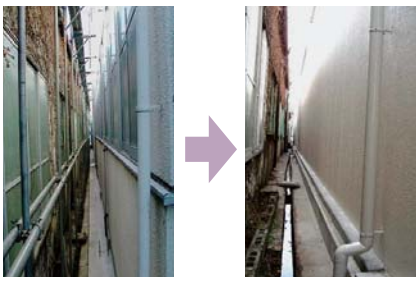
Effluent treatment plant at Komaki Factory

Affiliates

	2003	2004	2005
Violations	3	7	1 ※
Complaints	1	1	0

※Kani Ceramic: The noise level exceeds the regulation value set by the city government, and countermeasures are being continued.

〈See respective back issues for violations and complaints in 2003 and 2004.〉



Sound barrier installed at Nittoku Seisakusho

Environmental accounting

For the more effective promotion of environmental management, it is important to measure the environmental conservation cost and its effect in a quantitative manner. We introduced environmental accounting in FY1999 and expanded the scope to cover the entire group in FY2003.
The environmental conservation cost in FY2005 was 9,212 million yen on a non-consolidated basis and 9,786 million yen in the whole group, an increase of approximately 9% over the FY2004 level. The effect of environmental conservation activities was valued at 192 million yen on a non-consolidated basis.

Environment preservation cost

(Unit: million yen)

Items			Non-consolidated				Consolidated			
Classification		Major efforts	Investment		Expense		Investment		Expense	
			2004	2005	2004	2005	2004	2005	2004	2005
Costs within the business area	Pollution prevention cost	Air/water pollution prevention and noise reduction	80	204	952	757	118	222	1,171	932
	Global environmental conservation cost	Global warming prevention, energy conservation	4	25	69	256	10	77	112	304
	Resource circulation cost	Effective resource utilization, industrial waste treatment/disposal	37	58	520	525	47	63	694	724
Sub-total			121	287	1,541	1,537	174	363	1,977	1,960
Upstream & downstream cost		Recycling of products, etc., green purchase differences	0	0	4	5	0	0	4	5
Management activity cost		Employee environmental education, EMS construction and operation	4	6	403	343	7	8	470	407
R&D cost		R&D of products promoting environment preservation	657	994	5,433	5,898	657	994	5,433	5,898
Social activity cost		Nature protection, afforestation, environmental ads	0	0	188	132	0	0	196	142
Environment damage correction cost		Repair of soil contamination, disrupted nature	0	0	14	9	0	0	14	9
Other costs		—	4	0	32	1	4	0	32	1
Total			786	1,287	7,616	7,925	841	1,365	8,125	8,421

■Environmental conservation cost is classified in reference to the Environmental Accounting Guidelines published by the Ministry of the Environment, and calculated on a pro-rata basis based on the records of direct capital investment and cost according to our independently set rules.

Environmental conservation effect measurements

Classification		Non-consolidated			Consolidated		
Effect measured in the business area	Types of effect	2004	2005	Year-on-year change	2004	2005	Year-on-year change
Effect measured with respect to resource input into operations	Energy consumption						
	Purchased electricity (10,000 kwh)	19,178	21,171	1,993	30,379	32,967	2,588
	Gas (10000 m^3)	1,398	1,428	31	1,462	1,513	51
	LPG (tons)	3,660	4,228	568	7,982	8,894	912
	A oil (KL)	2,794	1,883	−911	2,794	1,883	−911
	Water consumption						
	Tap water (tons)	730,869	801,684	70,815	915,553	994,442	78,890
	Well water (tons)	973,518	935,164	−38,354	1,104,164	1,067,387	−36,777
	PRTP law-regulated substance consumption (tons)	544	603	59	823	840	17
Effect measured with respect to environmental l oad and waste from business activities	CO_2 emission from energy consumption (tons)	117,603	124,189	6,586	168,285	179,281	10,995
	Recycled plant wastewater (tons)	※ 969,593	1,150,196	180,603	※1,102,682	1,288,728	186,046
	Waste						
	Recycled mass (tons)	17,041	21,168	4,127	19,229	23,678	4,449
	Landfill, incineration (tons)	89	121	32	534	401	−133
	PRTR law-regulated substances released into air and water (tons)	16	13	−3	175	131	−44

※The definition of recycled water has been modified to mean water reused after wastewater treatment.

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	108
Cost saving	Energy cost saving achieved from energy conservation efforts	49
	Reduction of water expenses through water saving	7
	Waste disposal cost saving achieved by resource conservation and recycling efforts	29
Total		192

Consolidated companies : 9 affiliates

(Iijima Ceramic, Nakatsugawa Ceramic, Kani Ceramic, Nansei Ceramic, Kamioka Ceramic, Nittoku Seisakusho, Nichiwa Kiki, Tono Ceramic, Ceramic Sensor)

Environmental management

Eco-efficiency

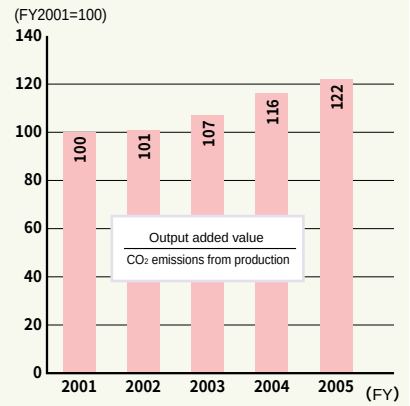
For sustainable development, companies need to minimize environmental impact and maximize economic value, so the key challenge is improving environmental efficiency. NGK Spark Plug Group evaluates CO_2 emissions, waste generation, etc. as indicators of environmental efficiency to promote environmental management.

NGK Spark Plug's Eco-efficiency

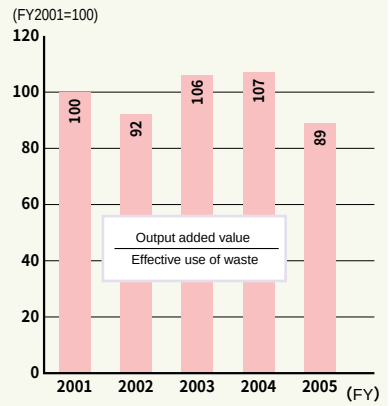
$$\text{Eco-efficiency} = \frac{\text{Output added value}}{\text{Environmental load}}$$

※The output added value is calculated by subtracting material costs and the costs of outsourced processing from sales.

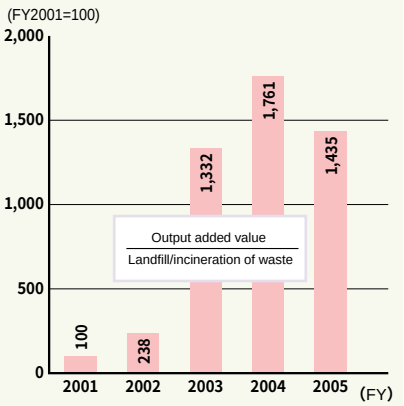
CO_2 index from production
〈Non-consolidated〉



Index of effective use of waste
〈Non-consolidated〉



Index of landfill/incineration of waste
〈Non-consolidated〉



History of environment conservation

Feb. 1973	Safety and Environment Section (present Environment & Safety Management Dept.) was established. Safety and Sanitation 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 (currently Satsuma 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 the company's entire operation sites (Head Office/Factory, Komaki, Miyanojo and Ise)
Jun. 2001	The first environment convention was held.
Jul. 2001	Cogeneration plant was installed in Miyanojo Factory.
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. 2006	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.

Energy

Basic concept

The Kyoto Protocol came into force on February 16, 2005 as the need intensifies for worldwide countermeasures against global warming. NGK Spark Plug Group recognizes that the reduction of total GHG emissions is crucial for controlling global warming, and has set a total emission reduction target in its NGK Spark Plug Group Eco Vision 2010.
This problem has attracted increasing attention in Japan since the revisions in April 2006 to the Law Regarding the Rationalization of Energy Use and the Law Concerning the Promotion of the Measures to Cope with Global Warming. NGK Spark Plug Group will properly respond to the requirements of the revisions, such as by reviewing its designated energy management factories; calculating, reporting and publishing its GHG emissions; and implementing energy savings in its distribution.

Shigeyasu Yamada,
Chairman / Director
Central Energy Conservation Expert Committee

Energy saving activities

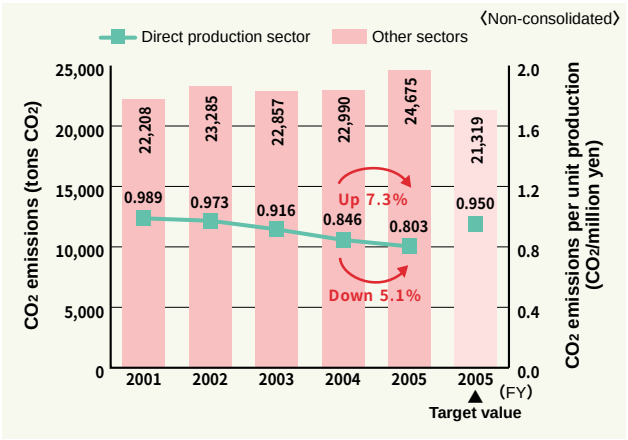
Energy saving activities

Results compared to FY2005 targets

〈Non-consolidated〉

		Target for FY2005	Result in FY2005
Direct production sector	Emissions per unit production	Down 4% (from FY2001)	Down 18.9% (from FY2001)
Other sectors	Emissions	Down 4% (from FY2001)	Up 11.1% (from FY2001)

The direct production sector achieved an 18.9% reduction per unit production, much higher than the 4% target. Other sectors (mainly indirect sectors), on the other hand, failed to meet the 4% target as climate changes had a major impact.

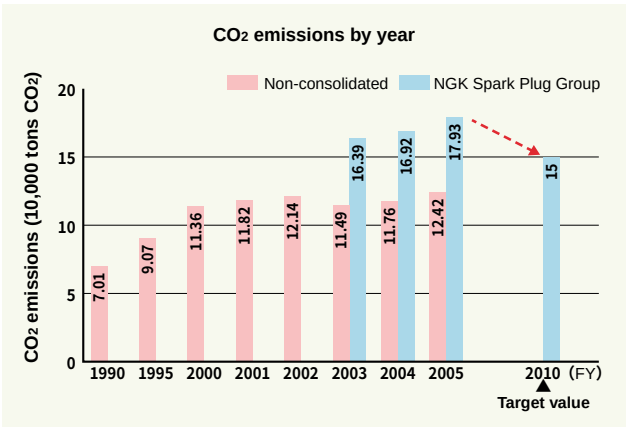


Eco Vision 2010 and targets for FY2006

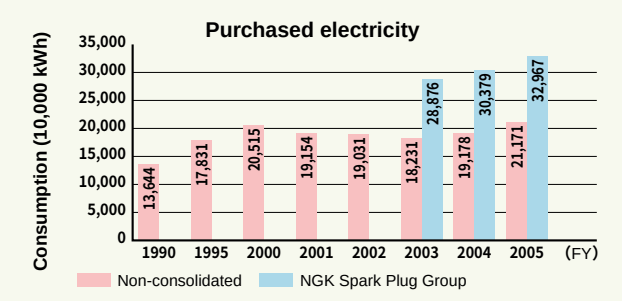
To sustain consistent energy saving activities, implemented measures must be clearly effective and properly assessed. For this purpose, in FY2006, we will set emission reduction targets and strictly manage the progress of all measures and their reduction amounts. We will also continue to manage total emissions for the achievement of Eco Vision 2010.

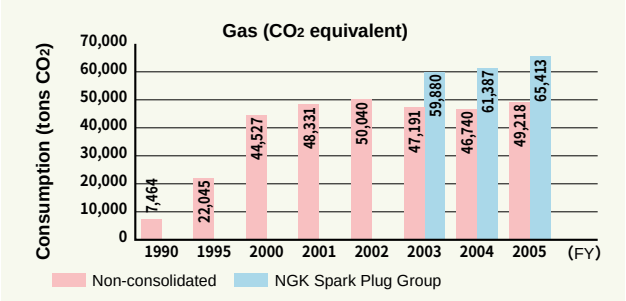
Targets for FY2006

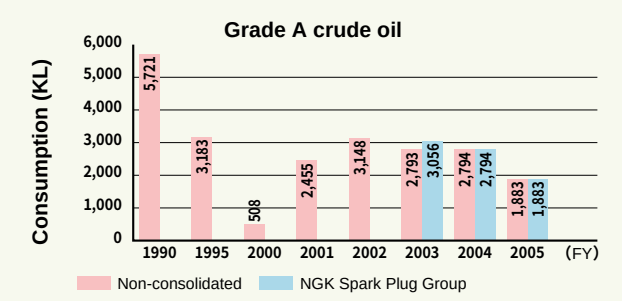
NGK Spark Plug	5,700 tons
Affiliates	1,891 tons

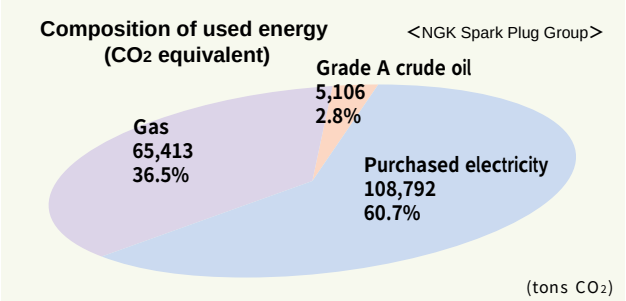


Energy use by year









Example <Energy saving in the cooling water supply system at Komaki Factory>

In December 2005, the construction of a new plant building in the Komaki Factory was completed. We are striving to make this building environmentally friendly through, for example, choosing energy-saving type equipment and devices when carrying out new installation.

No. 1 Plant Building of Komaki Factory

Chilled tower

We use chilled towers to supply factories with cooling water. The chilled towers use a compressor (chiller system) in summer and low temperature outdoor air (cooling tower system) in winter to save energy.

<Estimated annual effect>

839,000kWh ⇒ CO_2 reduction of 227 tons

Energy collection system

Inline water turbine generators run by falling cooling water have been installed to collect energy.

<Estimated annual effect>

44,429kWh ⇒ CO_2 reduction of 15 tons

Distribution

The April 2006 revision to the Law on the Rationalization of Energy Use made the adoption of energy saving measures mandatory in the distribution field.

Although our group companies were already committed to improving efficiency in distribution, such as by the use of low-emission vehicles and modal shifts, we have reaffirmed the significance of energy saving in the transport field and will continue to develop our energy saving measures as shippers and carriers.

Nittoku Unyu Co., Ltd.

Clean energy

In March 2006, a second photovoltaic generator was installed in the Head Factory. Although small, the equipment effectively utilizes previously unused roof space for power generation.

Photovoltaic generator

Waste

Basic concept

To maximize the effective use of resources, NGK Spark Plug Group handles waste in the following order of priority:

1. Reduction **2. Reuse** **3. Recycling** **4. Landfill/Incineration**

Definition of effective use

We reuse and recycle the valuable parts of the waste generated from our factories (including the recovery of heat). This includes waste materials sold as valuable resources.

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%.

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

NGK Spark Plug Group was committed to the target of achieving zero emission by FY2005. Having almost met our target, we are now shifting the focus onto reducing waste generation and post-waste treatment residue.

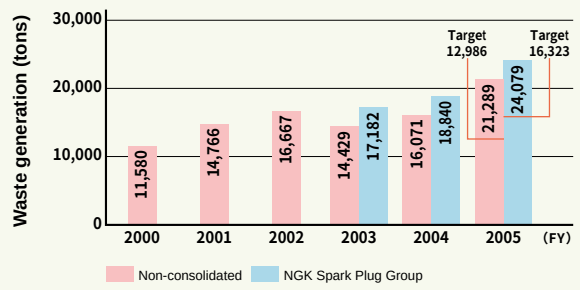
Results compared to FY2005 targets

In FY2005, we targeted the reduction of total waste generation by 10% in NGK Spark Plug and 5% in our affiliates from FY2003 levels, but failed to achieve these targets due to a dramatic increase in production. As the target of "reducing waste generation to 12,000 tons or less" in Eco Vision 2010 has been found difficult to achieve, we have reconsidered this Eco Vision. In FY2006, we have set the amount of emission reductions as the target and are supervising the progress of each measure and its reductions.

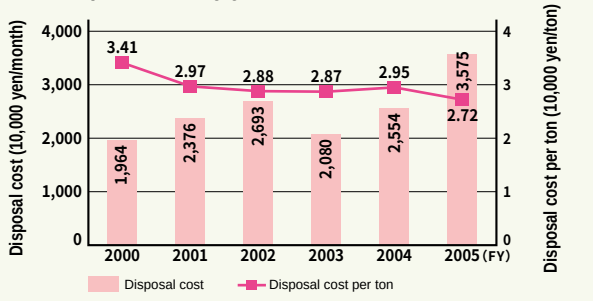
	Waste generation in FY 2003 (tons)	Waste generation in FY 2005 (tons)	Rate of change in FY2005 (%)	Date of achieving zero emission
Head Office/Factory	899.8	905.7	0.7	May 2003
Komaki Factory	8,412.2	14,860.5	76.7	May 2003
Miyanojo Factory	3,056.8	3,129.4	2.4	September 2002
Ise Factory	2,063.6	2,393.6	16.0	September 2003
Iijima Ceramic	1,098.8	1,062.5	−3.3	—
Nakatsugawa Ceramic	362.3	372.2	2.7	March 2006
Kani Ceramic	74.5	88.5	18.7	March 2006
Nansei Ceramic	49.1	26.1	−46.8	March 2005
Kamioka Ceramic	102.5	67.6	−34.0	March 2006
Nittoku Seisakusho	230.7	221.5	−4.0	October 2004
Nichiwa Kiki	4.0	7.8	91.9	September 2005
Tono Ceramic	16.2	78.8	386.2	—
Ceramic Sensor	811.6	864.7	6.5	October 2004
Total	17,182.3	24,078.7	40.1	—

※See p.31 for the effective waste utilization quantity, landfill and incineration quantity and recovery rate of each factory in FY 2005.

Waste generation by year



Waste disposal cost by year 〈Non-consolidated〉



On-site check of waste disposal contractors

To confirm that waste generated by NGK Spark Plug Group is treated correctly, we continued in FY2005 to conduct on-site checks of the intermediate treatment and final disposal processes, and confirmed that there was no problem in the way they were controlled.

	NGK Spark Plug	Affiliates
Number of waste disposal contractors	35	11
Total number of visitors	74	22

On-site check

Example <Recycling of green sheet waste>

The process of producing ceramic packaging generates green sheet waste, which is difficult to dispose of and has been traditionally landfilled. For NGK Spark Plug Group, which seeks to reduce the amount of landfill waste to achieve zero emission, the recycling of green sheet waste has been a challenge. After repeated consultation with waste disposal contractors, we have succeeded in recycling such waste, a major step toward achieving zero emission.

Green sheet waste

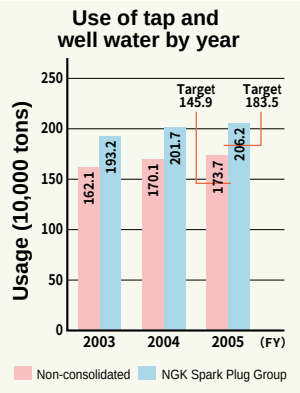
Water resources

Basic concept

NGK Spark Plug Group uses water, a precious resource from the earth, for our business operations. While we have always controlled the quality of our factory effluent, we have also been engaged since FY2004 in the reduction of water use to reduce the environmental impact.

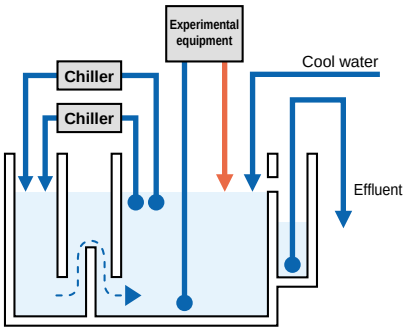
Results compared to FY2005 targets

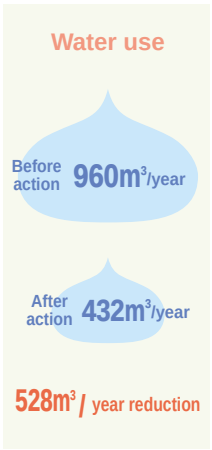
In FY2005, we targeted a 10% reduction in the use of tap and well water from the FY2003 level in NGK Spark Plug, and a 5% reduction among our affiliates. This new activity had a major effect in some sites, but NGK Spark Plug Group as a whole failed to meet the target. We will continue our efforts to eliminate wasteful use of water and reduce its consumption.



Example <Review of cooling water to reduce water use>

The equipment for experimental sensor packages uses cooling water. To avoid any decline in the quality of the water in the tank, some water is forced out for half an hour everyday and fresh water poured in. We have reviewed this water supply quantity and reduced it. We have also reassessed the cooling temperature and successfully reduced power consumption.



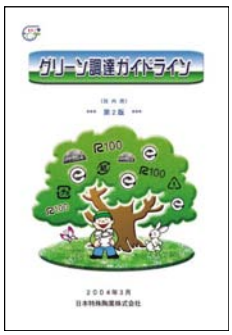


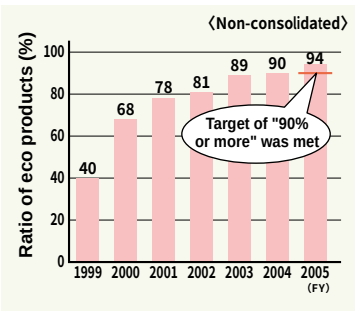
Green purchasing

Changing to eco-friendly office supplies

NGK Spark Plug Group is proactive in selecting environmentally friendly products (eco products) in the area of office supplies and commodities in order to enhance the awareness of environmental conservation in the workplace. 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:

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





∗ We only considered data on the use of office supplies (stationery) from our warehouse previously, but since FY2004 we have also covered direct purchasing by business departments.

Eco-friendly cars

To reduce the environmental impact of our distribution and sales activities, we are promoting the replacement of company vehicles that are due for renewal with eco-friendly cars.

Images

Number of low-emission company vehicles (No. of cars)

Category	NGK Spark Plug		Affiliates
	Head Office/ Factory	Sales offices	
Total number of company vehicles	82	100	23
New☆☆☆☆ (75%-decreased level in the exhaust gas standards in 2005)	9	18	3
New☆☆☆ (50%-decreased level in the exhaust gas standards in 2005)	9	13	2
☆☆☆ (75%-decreased level in the exhaust gas standards in 2000)	21	42	5
☆☆ (50%-decreased level in the exhaust gas standards in 2000)	4	7	2
☆ (25%-decreased level in the exhaust gas standards in 2000)	12	16	3
Exempted from exhaust gas regulations	27	4	8

Hazardous substances/green procurement

Basic concept

Regulations on hazardous substances are becoming more stringent on a global scale (e.g. ELV Directive and RoHS Directive) and also attracting more public attention. In order to prevent hazardous substances from causing environmental pollution and health hazards, NGK Spark Plug Group performs proper control of such substances through its management system established to address the ① response to demands from customers, ② handling and control within the group and ③ procurement from suppliers.

1 Customers

Reflecting the tightened regulations on hazardous materials mainly in Europe, our client manufacturers are making stricter demands for green procurement. NGK Spark Plug Group meets their various demands by submitting data on chemical contents through IMDS* and JGPSSI* survey tools, responding to specific survey slips, submitting certificates of non-use, undergoing on-site audits, etc.

***IMDS** (International Material Data System)
This is a system of collecting data on the materials and substances used in the 30,000 or so parts that make up an automobile.

***JGPSSI** (Japan Green Procurement Survey Standardization Initiative)
This is an association formed voluntarily by electrical and electronic equipment manufacturers to standardize investigations into chemicals contained in parts and materials.

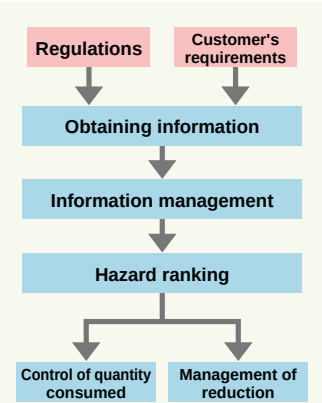
2 NGK Spark Plug Group

We have set up a “hazard ranking” based on data obtained on laws and customer requirements relevant to the hazardous materials contained in our products or used in our production process. We use this hazard ranking to classify hazardous materials into prohibited, restricted and controlled substances according to the level of risk, and we specify handling standards for each rank.

Hazard ranking

Hazard ranking	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

Control system

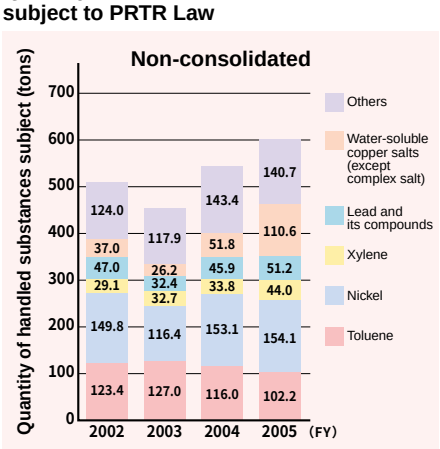


Control of substances subject to PRTR Law

We are taking measures to prohibit, replace and collect substances subject to the PRTR Law, our target being to reduce the amounts released into the air and water by 80% from the FY2002 levels by FY2010.

As the largest component of our emissions is toluene, used in the semiconductor manufacturing process, we are making preparations for the collection and reduction of emission of this substance.

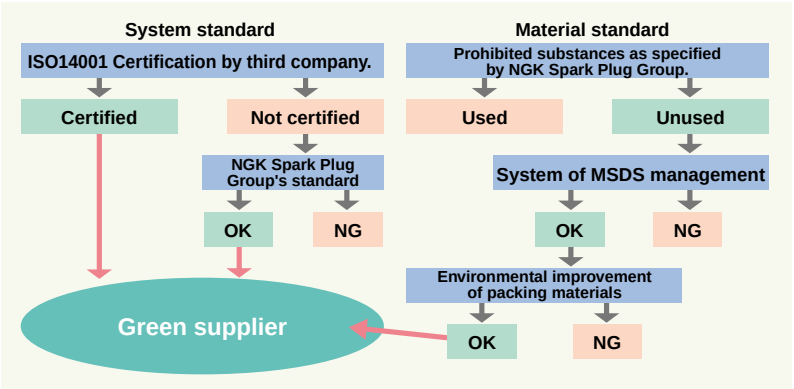
Quantity of handled substances subject to PRTR Law



3 Suppliers

We request suppliers to apply our “Green Procurement Guidelines (for Partners and Suppliers)” in order to procure raw materials and parts with less environmental impact. As part of this process, we have been gradually introducing a green supplier system since FY2005, which accredits green suppliers based on system standards and material standards. We are committed to reducing environmental impact by cooperating with our green suppliers on green procurement.

Green supplier system

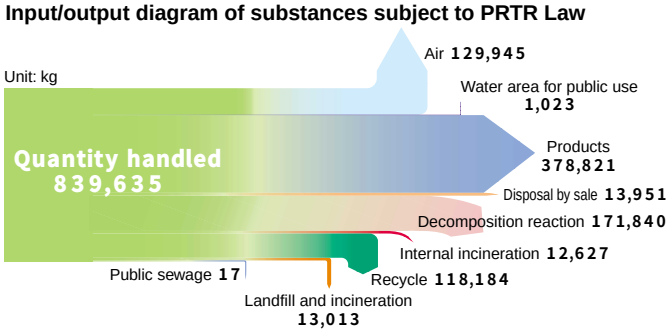


Targets and results in FY2005

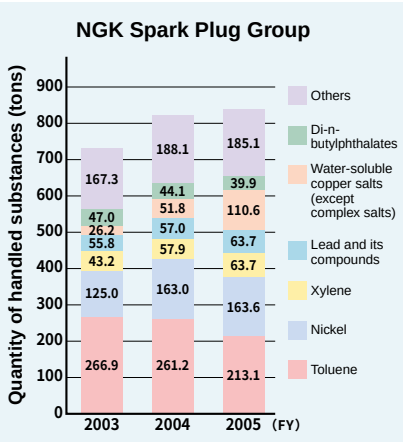
		NGK Spark Plug	Affiliates
Emissions	Targets for FY2005	8.6 tons (50% below the 2002 level)	Reduction by 20% per unit production (in comparison with the 2001 level)
	Results in FY2005	※ 13.5 tons (18.9% below the 2002 level)	117.5 tons (total)
	Eco Vision 2010	36 tons (80% below the 2002 level)	
Quantity handled in FY2005		602.8 tons	236.8 tons

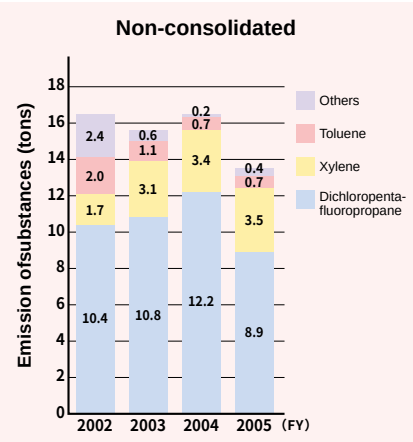
※The total abolishment of the use of dichloropentafluoropropane (HCFC-225), which damages the ozone layer, has fallen behind schedule, but a replacement is expected in December 2006.

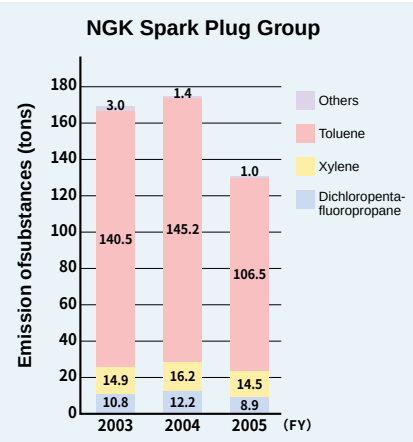
Input/output diagram of substances subject to PRTR Law



Emission of substances subject to PRTR Law







※Only substances covered by workplace reports (handled in quantities of 1 ton or more) are shown.

chapter 5

Products

We are proud to announce that our eco-products have received two awards.

Energy and resource saving in products will be increasingly important themes in the future. We are delighted to have received these awards, which have made us even more committed to solving such issues.

Received the Minister of Economy, Trade and Industry Prize at the 19th Chunichi Industrial Technology Awards

Universal A/F heated exhaust gas oxygen sensor

In December 2005, our “universal A/F heated exhaust gas oxygen sensor system” won the Ministry of Economy, Trade and Industry Prize at the 19th Chunichi Industrial Technology Awards. Ceramic application technology, one of our strong areas, is applied by using a ceramic element in the stainless head of a universal A/F heated exhaust gas oxygen sensor. The system was evaluated as being more functional than existing products, and contributing to the reduction of CO_2 emissions by controlling toxic exhaust gases and improving fuel efficiency.

<What are the Chunichi Industrial Technology Awards?>
The Chunichi Shimbun created these awards in 1986 to reward excellent achievements in industrial technology and product development. A panel of academics and other experts examines publicly invites companies to submit their technologies and products, and a selection committee makes the final decisions. In the 19th awards, there was one winner of the Ministry of Economy, Trade and Industry Prize, two winners of the Chunichi Shimbun Prize and one winner of the Special Encouragement Prize.

Mechanism

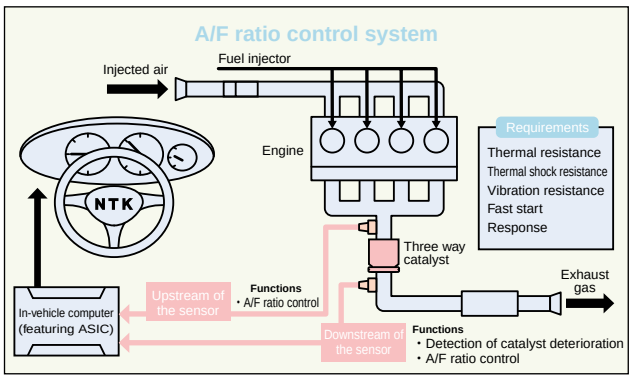
A universal A/F heated exhaust gas oxygen sensor is attached to the exhaust pipe of an engine to measure the air/fuel ratio based on the oxygen level and unburned gas level in the exhaust gas. The information detected by the sensor is communicated via ASIC, a dedicated control circuit, to the in-vehicle computer to adjust the fuel injection, etc. and control the combustion.

Comparison with existing products

Although an “oxygen sensor” also detects the air/fuel ratio, it only gives information on whether the ratio is higher or lower than a certain standard ratio. In contrast, a universal A/F heated exhaust gas oxygen sensor provides more information on exhaust gas.

Advantages

- Higher fuel efficiency during normal driving
- Extremely high fuel efficiency during idling
- Sophisticated engine control to minimize the discharge of hazardous substances




Presentation at the award ceremony


Award ceremony

Received the Chairman Prize at the ECCJ's 16th Energy Conservation Grand Prize

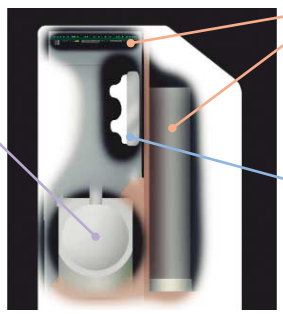
Oxygen concentrator for medical use 3E Series

In January 2006, our "Oxygen concentrator for medical use 3E Series" received the Chairman Prize at the ECCJ's 16th Energy Conservation Awards. The oxygen concentrator for medical use provides oxygen therapy at home for patients with chronic respiratory diseases. The device was highly appraised as an energy-saving product in this new and increasingly important field as our society ages and requires higher levels of welfare.

<What are the Energy Conservation Awards?>

Hosted by the Energy Conservation Center, Japan (ECCJ), these awards identify and recognize devices, materials and systems which contribute to the conservation of energy, resources, etc. and help establish a lower energy consuming society. In the 16th awards, there was one winner of the Ministry of Economy, Trade and Industry Prize, two winners of the Agency for Natural Resources and Energy Prize, and ten winners of the ECCJ's Chairman Prize.

Three Energy-Saving Technologies



1. High efficiency horizontally opposed compressor

With a brushless DC motor and inverter control circuit, the device can be operated with minimum power consumption corresponding to a preset flow rate. The weight is reduced by 33% with two pistons attached on one side of the motor (horizontally opposed type).

2. High efficiency absorbent and high efficiency control

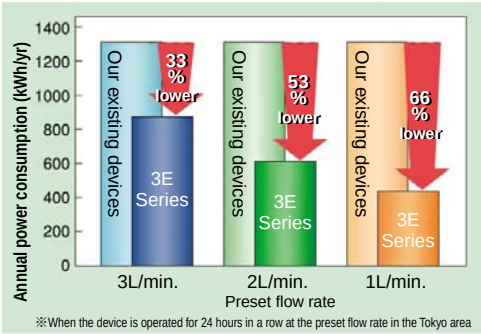
High efficiency zeolite is used as the absorbent to quickly control the air supply and exhaust rate of the absorption column and reduce load on the compressor.

3. Internal pilot air supply/ exhaust switching valve

Power consumption is reduced with this manifold type internal pilot solenoid valve driven by compressed air from the compressor.

Advantages

With the adoption of new technology to operate the device at optimally low power consumption corresponding to the flow rate prescribed for a specific patient, energy consumption can be dramatically reduced (by 33% at a flow rate of 3L/min. and 66% at a flow rate of 1L/min. in comparison with our existing devices).

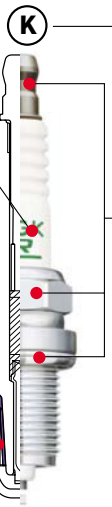


Development team members

Eco-design

Spark plug

Reduction in the use of hazardous substances



■ **Use of lead-free glaze**
Completed in May 2002

■ **Reuse of base metal shaped with talc and collected**
Since July 2006

■ **Use of CFC-free liniment**
Scheduled in December 2006

■ **Use of lead-free ink for terminal printing**
Completed in September 2004

■ **Galvanized colored chromate → Galvanized trivalent chromate**
- Zinc plated products: completed in May 2002
- Nickel plated products: completed in September 2004

■ **Environmental measures on packaging materials**
- Elimination of polystyrene foam: in progress
- Specifications for OEM packaging: in progress
- Replacement with PET: scheduled for December 2006

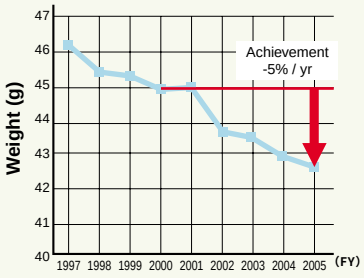
Reduction of environmental impact during the use stage

Reduction in weight

Thinner and longer spark plug enables not only reduction in weight but also adaptation to high fuel efficiency engines

Weight ratio	100%	75%	87%	67%	55%

Average weight of spark plugs by year



Longer life + improved fuel consumption

Standard travel distance before plug replacement

■ Standard type

Four-wheel vehicle	15,000～20,000km
Light four-wheel vehicle	7,000～10,000km
Motorcycle	3,000～ 5,000km

■ Precious metal (platinum, iridium) type

Four-wheel vehicle	100,000km

Effect on combustion

■Type of the tested car: 1.5L 4 cylinder engine DOHC 4 valve/cyl
■Gasoline used: premium unleaded ■Test mode: 10-15 mode

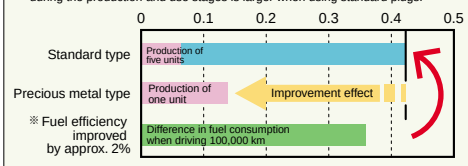
Plug tested	Fuel efficiency under 10-15 mode
Iridium IX Plug φ0.6mm	15.01
Standard plug φ2.5mm	14.77

Environmental impact during production and use stages

Driving 100,000 km consumes 1 precious metal plug or 5 Standard plugs.

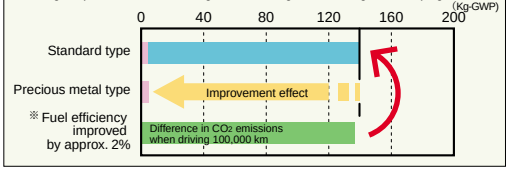
Impact on resource consumption

- The impact during the production stage is larger when using one precious metal plug than when using five standard plugs.
- Taking the impact of fuel consumption during travel into consideration, the total impact during the production and use stages is larger when using standard plugs.



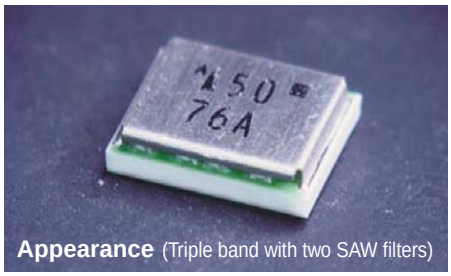
Impact on global warming

- The impact during the production stage is larger when using five standard plugs than when using one precious metal plug.
- Taking the impact of fuel consumption during travel into consideration, the total impact during the production and use stages is much larger when using standard plugs.



※Fuel efficiency has been measured with a chassis dynamo. Results obtained under normal driving conditions were not necessarily constant.

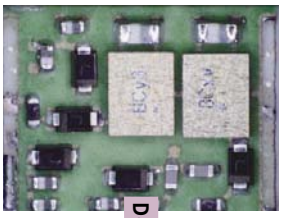
Front-end modules



Appearance (Triple band with two SAW filters)

A front-end module is a component installed in mobile phones, and performs mainly the following functions:

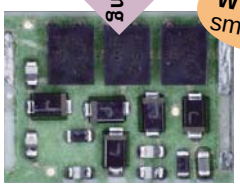
- Separating the frequencies of radio waves received by an antenna;
- Switching transmission and reception;
- Cutting the noise of power amplifiers;
- Building in a receiver bandpass filter (working as a SAW filter).



LTCC
front-end module
Triple band with
two SAW filters
6.5 x 5.0 mm

Downsizing

World's smallest



LTCC
front-end module
Triple band with
three SAW filters
5.4 x 4.0 mm

Downsizing

We have advanced the development of downsized front-end modules by use of our low temperature co-fired ceramic (LTCC) multilayer technology.

<Conventional front-end module>
The size is large because all the parts (resistance, inductor, condenser and diode) were mounted on a printed circuit board to make up the switch.

<LTCC front-end module>
With LTCC multilayer technology, the area is reduced to one half or one third. Low losses and high attenuation are also achieved.

Our newly developed front-end modules are the smallest (5.4 x 4.0 mm) of their type in the world, each having a three-frequency SAW filter built in. This downsizing has resulted in greater efficiency in the production process and an approximately 10% reduction in the use of raw materials.

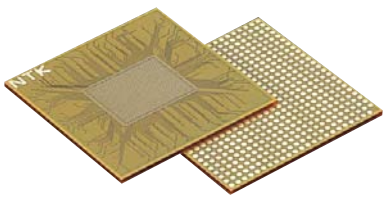
Organic package

In the computer you are using, the CPU, the computer's "brain," is connected with other devices through our organic package, which serves as a "nerve network." Thousands of terminals arranged in the CPU at less than 0.2 mm pitch are converted to a terminal arrangement with 1 mm pitch. The traces needed for the conversion are miniaturized and densified to reduce the required number of tracing layers and reduce the external dimension. We are reducing the materials required for package production year by year through such improvements in order to lower our environmental impact. In addition, we are applying lead-free solder and halogen-free materials to comply with the EU's RoHS Directive.

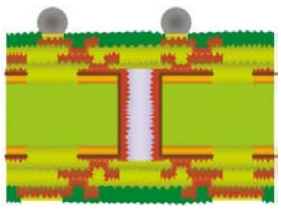
Ms. Etsuko Otsuka

Engineering and Development Division
Communication Media Components Group

Organic package



Cross section structure
(6-layer wiring structure)



chapter 5

Communication

Disclosure

Publication of environmental reports

For our stakeholders to understand our environmental conservation activities, we have published this ECO report since 2000 and site reports since 2003. We will continue to disclose our information proactively.

Outline

ECO report	•4,500 Japanese copies and 1,500 English copies published, along with online version. •Reporting the environmental and social activities of NGK Spark Plug and the environmental conservation activities of 11 domestic affiliates.
Site reports	•Published by four Nittoku factories and nine affiliates. •Reporting the environmental conservation activities of each business site.

Accepting visitors at environmental factories

To let people understand our environmental conservation activities, we are promoting visits at our environmental factories. In particular, we are encouraging local residents to witness our environmental measures inside and outside our business sites and answering their questions. To promote inter-company communications, we are also participating in Re-STEP*, which was started in June 2004. By widely accepting visitors to our environmental factories, we aim to jump-start environmental activities together with other local corporations.

※Mutual study system of corporate environmental activities (Chubu Bureau of Economy, Ministry of Economy, Trade and Industry)

http://restep.zttc.or.jp

Number of visits

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

Community

Cleaning activity in the local community

We perform regular cleaning activities to maintain the environment around our sites.

Miyanojo Factory

Head Office/Factory	Jun. 2005 (36 people) Nov. 2005 (40 people)	**Komaki Factory**	Sep. 2005 (45 people) Mar. 2006 (49 people)
Miyanojo Factory	Jul. 2005 (88 people) Sep. 2005 (8 people)	**Ise Factory**	Dec. 2005 (32 people)
Kamioka Ceramic	May. 2005 (26 people) Oct. 2005 (27 people)	**Nichiwa Kiki**	Sep. 2005 (20 people) Mar. 2006 (23 people)
Nansei Ceramic	Jun. 2005 (16 people) Sep. 2005 (15 people)	**Nittoku Seisakusho**	Nov. 2005 (11 people) Jun. 2005 (20 people) Dec. 2005 (12 people) Aug. 2005 (21 people) Mar. 2006 (20 people)
Ceramic Sensor	Sep. 2005 (8 people) Mar. 2006 (8 people)	**Iijima Ceramic**	Aug. 2005 (17 people) Nov. 2004 (12 people)
Nakatsugawa Ceramic	Sep. 2005 (9 people) Apr. 2006 (9 people)	**Kani Ceramic**	Jun. 2005 (14 people) Nov. 2004 (16 people)
Tono Ceramic	Every month (total 142 people)		

Ise Factory

Environmental conferences

We hold conferences with the public, mainly representatives of local residents, to win their understanding of our environmental conservation activities and stance.

Number of conferences held

Environmental conference	10 conferences, 26 attendees

Environmental exhibition

To acquaint the public with our environmental conservation activities, we give presentations at environmental events. In FY2005, we ran a booth in Eco-Products 2005 as a member company of Re-STEP.

Eco-Products 2005

Natural environment

Greening of factories

NGK Spark Plug Group offices stand on sites surrounded by greenery. We are continuously involved in efforts to preserve this rich nature, including weeding, pruning, and planting, and to reduce the impact of our business operations on the natural environment.

Ise Factory

Tono Ceramic

Education and enlightenment

Safety/health and environmental convention

We have organized an environmental convention every year since FY2001 and a safety/health and environmental convention since FY2004 for the purpose of making all employees of NGK Spark Plug Group deeply aware of our environmental challenges. In FY2005, under the slogan, “Let’s Achieve Zero Safety and Environmental Risk!” we held lectures on health and safety as well as internal panel discussions on global warming. We also organized sessions in various factories and affiliates, featuring improvement examples as the central theme, to which we invited local residents.


Panel discussion


Lecture on health and safety

Encouraging the acquisition of official qualifications

To ensure the compliance with environmental conservation-related laws, regulations and agreements, and with voluntary standards under the company’s environment policy, we develop, train and nurture employees to gain expertise and official qualifications according to the needs identified for each operation site.

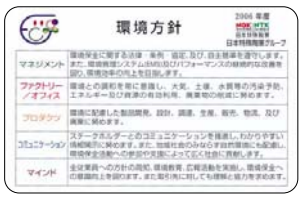

Energy conservation patrol by energy manager

Numbers of officially qualified employees

		NGK Spark Plug	Affiliates
Pollution control manager	Air	35	1
	Water	61	12
	Noise	41	2
	Vibration	27	3
Energy manager		39	9
Specially controlled industrial waste manager		34	15
Environment measurement engineer		1	0
Work environment measurement engineer		5	0

Environment card

We distribute an environment card to every employee of NGK Spark Plug Group so that they understand and are aware of our environment policy. The employees write the “organization’s objectives and goals” and “my individual efforts” on the environment cards to be more aware of environmental conservation in their everyday activities.

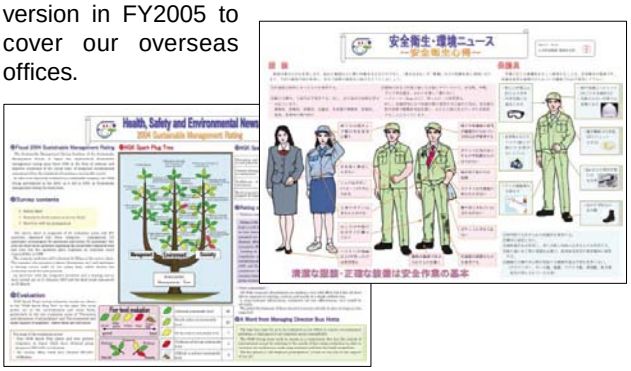


Proposals for improvement

We have an improvement proposals system to encourage employees to devise innovations and inventions in their processes and operations. In FY2005, there were 36,320 proposals, many of which were ideas on environmental issues such as energy saving and waste reduction. All our employees are contributing to environmental conservation through the steady improvement of their daily jobs.

Health,Safety and Environmental News

To educate and enlighten our employees, we periodically issue “Health, Safety and Environmental News”, which provides information on items such as ISO14001-based activities, rules and measures on health and safety, and various related events. We started to issue an English version in FY2005 to cover our overseas offices.



Employee magazine "Nittoku"

Our monthly employee magazine “Nittoku” includes pages dedicated to the environment. In order to help raise environmental awareness among our employees, the magazine covers items such as environment-related events and topics both in Japan and overseas, and the impact of environment-related regulations on NGK Spark Plug Group’s activities.

Data

PRTR

(kg)

		Ordinance No.	Substance name (substance to be reported)	Quantity handled	Release quantity			Volume of material transferred		Recycled mass	Removal/ disposal quantity	Discharged mass
					Air	Public water area	Soil	Public sewerage	Waste			
NGK Spark Plus	Head Office/Factory	40	Ethyl benzene	4,067	0						4,067	
		63	Xylene	23,829	73				0		23,757	
		68	Chromium and trivalent chromium compounds	4,472				1	0	508		3,963
		108	Inorganic cyanogens compounds (except complex salts and cyanate)	1,084				16			1,068	
		144	Dichloropentafluoropropane (also called HCFC-225ca)	3,125	3,125							0
		224	1,3,5-trimethylbenzene	1,777							1,777	
		227	Toluene	90,301	299						90,001	
		231	Nickel	43,452						438		43,013
		299	Benzene	3,800	2						3,798	
	Komaki Factory	25	Antimony and its compounds	2,466					0	461		2,005
		30	Condensation polymer of 4.4'-isopropylidendiphenyl and 1-chroro-2.3-epoxypropane (also called bisphenol A epoxy resin) (liquid form only)	9,165							9,165	
		40	Ethyl benzene	2,198	8					412	1,777	
		63	Xylene	17,188	1,301					6,604	9,283	
		68	Chromium and trivalent chromium compounds	1,352						805		547
		100	Cobalt and its compounds	3,206					2	314		2,891
		108	Inorganic cyanogens compounds (except complex salts and cyanate)	8,027						62	2,710	5,255
		144	Dichloropentafluoropropane (also called HCFC-225ca)	2,606	2,606							
		207	Water-soluble copper salts (except complex salts)	110,576		66			1	1,778		108,731
		227	Toluene	11,946	435					26	11,485	
		230	Lead and its compounds	1,603	0				80	228		1,294
		232	Nickel compounds	14,123		66			4	3,926		10,126
		299	Benzene	1,134	4						1,130	
		304	Boron and its compounds	24,784		161			190	2,096	1	22,335
		309	Poly (oxyethylene) nonylphenolether	2,594						2,568	26	
		310	Formaldehyde	12,871						12,742	129	
		311	Manganese and its compounds	15,730		57				15,673		0
		346	Molybdenum and its compounds	2,046	0	0				129		1,916
	Miyanojo Factory	68	Chromium and trivalent chromium compounds	1,793					0	1,259	452	82
		108	Inorganic cyanogens compounds (except complex salts and cyanate)	2,783						7	2,776	
		144	Dichloropentafluoropropane (also called HCFC-225ca)	3,151	3,151							
		231	Nickel	110,626								110,626
		304	Boron and its compounds	3,877					74	49		3,739
	Ise Factory	30	Condensation polymer of 4.4'-isopropylidendiphenyl and 1-chroro-2.3-epoxypropane (also called bisphenol A epoxy resin) (liquid form only)	3,611							3,611	
		43	Ethylene glycol	1,708						1,708		
		63	Xylene	2,996	2,099					897		
		230	Lead and its compounds	49,588						13,855		35,693
		310	Formaldehyde	1,704						1,704		
		311	Manganese and its compounds	1,486						1,250	0	235
Affiliates	Iijima Ceramic	63	Xylene	6,675	6,199					476		
		68	Chromium and trivalent chromium compounds	2,004					1,066			938
		108	Inorganic cyanogens compounds (except complex salts and cyanate)	3,966		1				2,928	279	758
		227	Toluene	4,109						4,109		
		230	Lead and its compounds	7,473						1,222		6,251
		231	Nickel	1,788								1,788
		232	Nickel compounds	1,945						1,945		
		270	Di-n-butylphthalates	8,144					3,116	1,535	3,492	
		346	Molybdenum and its compounds	3,257					1,320			1,937
	Nakatsugawa Ceramic	63	Xylene	13,014	4,866					7,987		161
		64	Silver and its compounds	1,679								1,679
		68	Chromium and trivalent chromium compounds	11,609					1,815	2,832		6,963
		227	Toluene	106,704	105,776					928		
		230	Lead and its compounds	3,355						1,286		2,069
		270	Di-n-butylphthalate	28,912					3,693	8,992	10,922	5,306
		272	Phthalic acid bis (2-ethylhexyl)	2,359						2,031	236	93
		346	Molybdenum and its compounds	4,411					650	705		3,056
	Kani Ceramic	270	Di-n-butylphthalates	2,847					1,001	252	1,397	
	Nansei Ceramic	230	Lead and its compounds	1,715						1,713		2
	Nittoku Seisakusho	231	Nickel	7,735								7,735
	Ceramic Sensor	253	Hydrazine	8,680						7,550	1,130	
		283	Hydrofluoric acid and its water-soluble salt	2,359		210				2,195		
		304	Boron and its compounds	2,050		463						1,587
Total				839,635	129,945	1,023	0	17	13,013	118,184	184,468	392,772

※ The following two substances included in "ECO report 2005" published in FY2005 were found in a subsequent investigation not to be subject to the PRTR law, and have therefore been excluded from this report:
- No.1 Water-soluble zinc compounds (Head Office, Komaki, Miyanojo)
- No.40 HCFC-22 (Komaki)

Waste

		Volume of emissions (tons)	Volume effectively used (tons)	Volume of landfill and incineration (tons)	Recovery rate (%)
NGK Spark Plug	Head Office/Factory	905.7	893.7	12.0	98.7
	Komaki Factory	14,860.5	14,779.2	81.2	99.4
	Miyanojo Factory	3,129.4	3,109.3	20.1	99.4
	Ise Factory	2,393.6	2,386.1	7.5	99.7
Affiliates	Iijima Ceramic	1,062.5	969.1	93.3	91.2
	Nakatsugawa Ceramic	372.2	254.6	117.6	68.4
	Kani Ceramic	88.5	66.1	22.4	74.7
	Nansei Ceramic	26.1	26.0	0.2	99.4
	Kamioka Ceramic	67.6	66.8	0.8	98.9
	Nittoku Seisakusho	221.5	219.9	1.6	99.3
	Nichiwa Kiki	7.8	7.6	0.1	98.4
	Tono Ceramic	78.8	39.5	39.3	50.1
	Ceramic Sensor	864.7	859.9	4.7	99.5
Total		24,078.7	23,677.8	400.9	98.3

Contact for inquiries

		Contacts for inquiries (Dept. name/tel)	
NGK Spark Plug	Head Office/Factory	Environment and Safety Management Dept.	52−872−5980
	Komaki Factory	Environment and Safety Management Dept.	568−76−1544
	Miyanojo Factory	Environment and Safety Management Dept.	996−53−2211
	Ise Factory	Environment and Safety Management Dept.	596−39−1534
Affiliates	Iijima Ceramic	General Administration Dept.	265−86−5211
	Nakatsugawa Ceramic	General Administration Dept.	573−68−5484
	Kani Ceramic	General Administration Dept.	574−63−2511
	Nansei Ceramic	General Administration Dept.	599−65−3366
	Kamioka Ceramic	General Administration Dept.	578− 2−1112
	Nittoku Seisakusho	General Administration Dept.	52−811−3921
	Nichiwa Kiki	General Administration Dept.	52−382−0511
	Tono Ceramic	General Administration Dept.	574−63−1031
	Ceramic Sensor	General Administration Dept.	568−76−5400

Air, water and noise

	Item	Type		Unit	Statutory regulation value	Voluntary regulation value	Average	MAX
Head Office/ Factory	Atmosphere	Dust	Boiler (No. 12)	mg/Nm³	50	40	<2	<2
			Furnace (PR-2)	mg/Nm³	150	120	8	8
		NOx	Boiler (No. 12)	ppm	150	120	49	49
			Furnace (PR-2)	ppm	180	144	72	77
	Drain (drainage)	pH		—	5.0～9.0	5.4～8.6	6.9	7.4
		SS		mg/L	600	480	24	77
		BOD		mg/L	600	480	11	23
		n-Hexane extract		mg/L	30	24	1.6	3.1
		Cyan		mg/L	1	0.8	0.15	0.3
		Total chromium		mg/L	2	1.6	0.05	0.1
		Hexavalent chromium		mg/L	0.5	0.4	<0.04	<0.04
		Zinc		mg/L	5	4	0.87	2.4
		Lead		mg/L	0.1	0.08	<0.02	<0.02
		Nitrogen		mg/L	120	96	18	27
		Phosphorus		mg/L	16	12.8	0.4	0.58
		Fluorine		mg/L	8	6.4	0.17	1.8
		Boron		mg/L	10	8	<1	1
	Noise	Morning	R spot	dB	70	68	65	65
			T spot	dB	65	63	※1 67.5	※1 67.5
		Daytime	R spot	dB	70	68	62.6	62.6
			T spot	dB	65	63	※1 67.8	※1 67.8
		Evening	R spot	dB	70	68	61.8	61.8
			T spot	dB	65	63	※1 65.4	※1 65.4
		Night	R spot	dB	65	64	63.4	63.4
			T spot	dB	55	54	※1 65.5	※1 65.5
Komaki Factory	Atmosphere	Dust	Boiler (No. 1 - 5)	mg/Nm³	200	160	<2	<2
			Furnace (No. 9 - 10)	mg/Nm³	200	160	9	11
		NOx	Boiler (No. 1 - 5)	ppm	250	200	22	23
			Furnace (No. 9 - 10)	ppm	200	160	73.5	120
	Drain (public water area)	pH		—	6.0～8.0	6.2～7.8	7.4	7.8
		SS		mg/L	30	24	5.8	9
		BOD		mg/L	25	20	7.2 ※2	27
		COD		mg/L	—	—	6.4	9.3
		n-Hexane extract		mg/L	5	4	1.02	1.2
		Cyan		mg/L	0.5	0.4	<0.1	<0.1
		Total chromium		mg/L	1	0.8	<0.04	<0.04
		Hexavalent chromium		mg/L	0.2	0.16	<0.04	<0.04
		Copper		mg/L	1	0.8	0.04	0.07
		Zinc		mg/L	3	2.4	0.18	0.36
		Lead		mg/L	0.1	0.08	<0.02	<0.02
		Nitrogen		mg/L	120	60	8.35	14
		Phosphorus		mg/L	16	4	0.43	0.65
		Nickel		mg/L	—	—	0.21	0.4
		Manganese		mg/L	—	—	0.12	0.2
		Fluorine		mg/L	8	6.4	0.45	0.9
		Boron		mg/L	10	8	0.42	2
	Noise	Morning	Fifth spot	dB	65	63	64	64
		Daytime	Fifth spot	dB	70	68	65	65
		Evening	Fifth spot	dB	65	63	64	64
		Night	Fifth spot	dB	60	58	※1 64	※1 64
Miyanojo Factory	Atmosphere	Dust	Cooling and heating machine	mg/Nm³	300	240	13	13
			Generating machine (No. 2)	mg/Nm³	100	80	24	28
		NOx	Cooling and heating machine	ppm	180	144	67	67
			Generating machine (No. 2)	ppm	950	900	785	880
		SOx	Generating machine (No. 2)	Nm³/h	3.9	3	1.3	1.7
	Drain (public water area)	pH		—	6.0～8.0	6.5～7.8	7.5	7.6
		SS		mg/L	35	28	7.6	18
		BOD		mg/L	20	16	5.9	16
		n-Hexane extract		mg/L	5	4	<2.5	<2.5
		Cyan		mg/L	1	0.8	<0.05	<0.05
		Hexavalent chromium		mg/L	0.5	0.4	<0.05	<0.05
		Copper		mg/L	3	2.4	<0.05	<0.05
		Zinc		mg/L	5	2.4	0.11	0.11
		Lead		mg/L	0.1	0.08	<0.01	<0.01
		Fluorine		mg/L	8	6.4	<0.2	<0.2
		Boron		mg/L	10	8	1.13	1.4
		E. coli		counts/cm³	3000	2400	0	0
	Noise	Morning		dB	60	55	49.7	50.4
		Daytime		dB	65	60	44.9	46.4
		Evening		dB	60	55	45.2	46
		Night		dB	50	50	45.9	47.2
Ise Factory	Atmosphere	Dust	Furnace	mg/Nm³	250	100	5	5
		NOx	Furnace	ppm	180	140	62	100
	Drain (public water area)	pH		—	5.8～8.6	6.0～8.4	7.6	8
		SS		mg/L	90	24	<1	<1
		BOD		mg/L	25	8	1.8	6
		COD		mg/L	25	12	1.6	5
		n-Hexane extract		mg/L	5	2.5	<1	<1
		Cyan		mg/L	1	0.5	<0.1	<0.1
		Total chromium		mg/L	2	1	<0.04	<0.04
		Hexavalent chromium		mg/L	0.5	0.3	<0.04	<0.04
		Copper		mg/L	1	0.5	<0.02	<0.02
		Zinc		mg/L	5	2.5	<0.015	<0.015
		Lead		mg/L	0.1	0.05	0.0096	0.01
		Nitrogen		mg/L	120	60	0.92	5.4
		Phosphorus		mg/L	16	8	0.42	1.7
		Manganese		mg/L	—	—	<0.02	<0.02
		Fluorine		mg/L	8	4	<0.1	<0.1
		Boron		mg/L	10	5	1.09	1.9
		E. coli		counts/cm³	3000	1500	0	0
	Noise	Morning		dB	55	55	47.0	50.2
		Daytime		dB	60	58	48.1	51.7
		Evening		dB	55	55	46.5	51.5
		Night		dB	50	50	44.9	49.5

※1 Due to background noise. Background noise means the noise when machines and other equipment are not in operation, and so refers to outside traffic, neighboring factories, and so on.

※2 For the violation code, see p.16 “Compliance”.

	Item	Type		Unit	Statutory regulation value	Voluntary regulation value	Average	MAX
Iijima Ceramic	Atmosphere	Dust	Steam boiler (No. 1)	mg/Nm³	100	100	<5	<5
			Cooling and heating machine	mg/Nm³	100	100	<5	<5
		NOx	Steam boiler (No. 1)	ppm	150	150	53	58
			Cooling and heating machine	ppm	150	150	38	38
	Drain (drainage)	pH		—	5.8～8.6	6.0～8.0	7.2	7.4
		SS		mg/L	50	10	2.2	5
		BOD		mg/L	30	25	1.7	3.4
		n-Hexane extract		mg/L	5	5	<1	<1
		Cyan		mg/L	0.5	0.3	<0.01	<0.01
		Total chromium		mg/L	1	1	<0.02	<0.02
		Hexavalent chromium		mg/L	0.3	0.3	<0.02	<0.02
		Copper		mg/L	2	2	0.03	0.04
		Zinc		mg/L	3	3	<0.05	<0.05
		Lead		mg/L	0.1	0.1	0.007	0.011
		Phosphorus		mg/L	16	16	0.63	0.9
		E. coli		counts/cm³	3000	3000	19	50
	Noise	Morning	First spot	dB	65	65	48.5	48.5
		Daytime	First spot	dB	65	65	46.7	46.7
		Evening	First spot	dB	65	65	49.0	49.0
		Night	First spot	dB	55	55	48.2	48.2
Nakatsugawa Ceramic	Atmosphere	Dust	Furnace (NN-1)	mg/Nm³	50	20	6	6
		SOx	Furnace (NN-1)	ppm	0	0	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	6.5
		BOD		mg/L	15	13	1.65	4.6
		COD		mg/L	40	30	6	7.4
		n-Hexane extract		mg/L	5	4	<0.5	<0.5
		Nitrogen		mg/L	10	10	3.95	6.5
		Phosphorus		mg/L	3	2.5	0.019	0.034
		E. coli		counts/cm³	3000	1000	24.8	210
	Noise	Morning		dB	60	58	52	52
		Daytime		dB	65	63	52	52
		Evening		dB	60	58	53	53
		Night		dB	50	50	50	50
Kani Ceramic	Atmosphere	Dust	Boiler	mg/Nm³	100	90	6	6
		SOx	Boiler	ppm	150	135	147	147
	Drain (drainage)	pH		—	5.8～8.6	5.9～8.5	7.1	7.1
		SS		mg/L	200	180	2.8	2.8
		BOD		mg/L	160	144	22	22
		COD		mg/L	160	30	11	11
		n-Hexane extract		mg/L	5	4.5	1	1
	Noise	Morning	First spot	dB	50	50	※2 51.6	※2 52.2
		Daytime	First spot	dB	60	60	51.8	53.6
		Evening	First spot	dB	50	50	※2 52.7	※2 53.7
		Night	First spot	dB	45	45	※2 51.6	※2 53.0
Nansei Ceramic	Drain (drainage)	pH		—	5.8～8.6	5.8～8.6	7.1	7.2
		SS		mg/L	200	90	4.7	11
		BOD		mg/L	20	20	5.3	8
		COD		mg/L	160	40	7	13
		n-Hexane extract		mg/L	5	5	<1	<1
		Lead		mg/L	0.1	0.1	0	0
		Nitrogen		mg/L	120	100	8.3	15
		Phosphorus		mg/L	16	16	0.84	1.8
		E. coli		counts/cm³	3000	1000	252	560
	Noise	Morning	North	dB	55	55	53.5	53.5
		Daytime	North	dB	60	60	57.8	57.8
		Evening	North	dB	55	55	52.7	52.7
		Night	North	dB	50	50	49.0	49.0
Kamioka Ceramic	Drain (public water area)	pH		—	—	6.2～8.2	7.75	8.1
		SS		mg/L	—	50	3.3	5.6
		BOD		mg/L	—	40	4	7.5
		COD		mg/L	—	40	6.3	11
		n-Hexane extract		mg/L	—	2.5	0.5	0.5
		E. coli		counts/cm³	—	—	<30	<30
	Noise	Morning	Fourth spot	dB	60	60	45	45
		Daytime	Fourth spot	dB	65	65	44	44
		Evening	Fourth spot	dB	60	60	43	43
		Night	Fourth spot	dB	50	50	44	44
Nittoku Seisakusho (Head Office/ Factory)	Drain (drainage)	pH		—	5.0 or more	5.8～9.0	7.2	7.2
		SS		mg/L	600	300	110	110
		BOD		mg/L	600	300	160	160
		n-Hexane extract		mg/L	50	25	0	0
	Noise	Morning		dB	60	60	※1 64	※1 64
		Daytime		dB	65	65	63	63
		Evening		dB	60	60	※1 62	※1 62
Nittoku Seisakusho (Oguchi Factory)	Drain (public water area)	pH		—	5.8～8.6	6.0～8.4	7.2	7.2
		SS		mg/L	30	30	2	2
		BOD		mg/L	25	20	0.5	0.5
		n-Hexane extractNitrogen		mg/L	5	4	1	1
		Nitrogen		mg/L	120	60	0.7	0.7
		Phosphorus		mg/L	16	8	0.01	0.01
	Noise	Morning		dB	55	55	53	53
		Daytime		dB	60	60	57	57
		Evening		dB	55	55	54	54
		Night		dB	50	50	46	46
Nichiwa Kiki	Drain (drainage)	pH		—	5.0 or more	6.0～8.0	7.1	7.2
		n-Hexane extract		mg/L	50	20	1.8	3
	Noise	Daytime		dB	65	63	62.3	62.3
Tono Ceramic	Atmosphere	Dust	Furnace	mg/Nm³	—	200	19	19
		NOx	Furnace	ppm	—	400	71	71
	Drain (public water area)	pH		—	—	5.8～8.6	7.2	7.2
		SS		mg/L	—	200	29	29
		BOD		mg/L	—	160	6.4	6.4
		n-Hexane extract		mg/L	—	5	0.5	0.5
	Noise	Morning		dB	50	50	46	46
		Daytime		dB	60	60	54.2	58
		Evening		dB	50	50	46	46
		Night		dB	45	45	45	45
Ceramic Sensor	Atmosphere	Dust	Boiler	mg/Nm³	100	100	1	1
		NOx	Boiler	ppm	150	150	48.5	55
	Drain (public water area)	pH		—	6.0～8.0	6.0～8.0	7.2	7.6
		SS		mg/L	18	14.4	6	8
		BOD		mg/L	18	14.4	5.7	8.2
		COD		mg/L	18	14.4	11.7	16
		n-Hexane extract		mg/L	2	1.6	1	1
		Nitrogen		mg/L	30	24	14.4	29
		Phosphorus		mg/L	4	3.2	0.3	1
		Fluorine		mg/L	8	8	2.3	4.9
		Boron		mg/L	10	10	2.2	4.3
	Noise	Daytime		dB	70	70	58.7	59.5
		Night		dB	60	60	57.3	58.2

chapter 6

We will perform social contribution activities as a “good corporate citizen”.

- 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.

Expo 2005 Aichi, Japan

The 2005 World Exposition in Aichi, Japan (Expo 2005), was held from March 25 to September 25, 2005. As a company based in Aichi Prefecture, we supported the event in a number of ways.

Morimura Okura Museum

On March 5, 2005, the four companies of the Morimura Group* opened their jointly established Morimura Okura Museum, “CANVAS”. It introduces the present and future of the ceramic industry as well as the four companies’ history, future dreams and contribution to the global environment, while also describing fascinating aspects of design and manufacturing. While this museum was opened as a Japan partnership project at Expo 2005 Aichi, we look forward to receiving many visitors even after the expo ends.

* Four companies of the Morimura Group:
  - Noritake Co., Ltd.
  - Toto Ltd.
  - NGK Insulators Ltd.
  - NGK Spark Plug Co., Ltd.

CANVAS

Backyard tour

The Japan Association for the 2005 World Exposition organized backyard tours jointly with EPOC*. The tours provided opportunities to observe environmental technologies hidden behind the pavilions and facilities. As a member company of EPOC, we provided two guides and deepened exchanges with tour participants.

* EPOC: Environmental Partnership Organizing Club
  This is a nonprofit organization established in February 2000 made up mainly of opinion leaders in the Chubu business community. Approximately 300 companies are involved in activities to establish a recycling-oriented economic society.

Backyard tour

Contribution to local communities

NGK Spark Plug Group endeavors to cooperate with local communities as a community member.

Recovery from Typhoon 21

We received a letter of appreciation from Ise City for our support for the recovery from damage caused by Typhoon 21, which hit southern Mie Prefecture in September 2004.

Recovery support

Cleaning activities organized by local governments

We support the creation of comfortable and beautiful towns by participating in cleaning and landscaping activities organized by local governments.

Date	Participating business site	Event name	Organizer	Event place
2005.04.16	Komaki Factory, Ceramic Sensor	Mt. Komaki landscaping activity	Komaki City	Mt. Komaki
2005.05.22	Iijima Ceramic	Tenryu River Environmental Volunteer Picnic	Nagano Techno Foundation Ina Techno-Valley Regional Center	Tenryu River
2005.10.01	Komaki Factory, Ceramic Sensor	Cleaning activity around Komaki City Hall	Komaki City	Around Komaki City Hall
2005.11.08	Head Office and Head Factory	Secure, Safe and Comfortable Urban Development Campaign, Nagoya 2005	Nagoya City and Nagoya Urban Landscaping League	Around Hisaya Odori Park
2006.02.18	Kani Ceramic	Kani River cleaning activity (Pre-Event of Kani City Environmental Festa)	Kani City	Kani River
2006.03.19	Nittoku Seisakusho	Gojo, Aise and Yato Rivers cleanup activity	Oguchi Town	Aise River

Cleaning activity around Komaki City Hall

Traffic safety

As a member of the automobile industry, we strive to ensure traffic safety. We are enhancing our employees' awareness of safe driving and also asking drivers around our business sites to drive safely.

Traffic safety education (Miyanojo Factory)

Commuting with headlights on (Miyanojo Factory)

Street patrols across Aichi Prefecture (Head Office/Factory)

Local cultural activities

Satsuma Town Summer Festival (August)

The summer festival was held for the first time since Miyanojo Town, the home of our Miyanojo Factory, was merged as Satsuma Town. A total of 136 people took part in the Nittoku Dance Club as they performed the "Miyanojo Ondo" and other dances.

Nittoku Dance Club

Playing field opened to the community

When requested by the local community, Miyanojo Factory opens its playing field for events such as ground golf tournaments, official rugby games, training camps and children's baseball.

Ground golf tournament

chapter 7

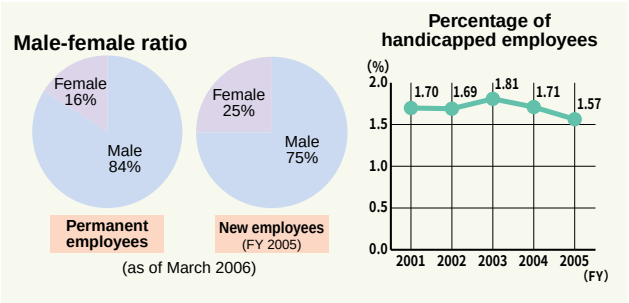
We will respect the diversity and individuality of our employees and provide them with a safe and pleasant working environment that utilizes their abilities.

- 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 opportunities

We are working to eliminate discrimination by race, sex, belief, handicap, etc. during the recruiting process and in the workplace in order to ensure equality of opportunities. We have increased the choices for motivated employees by establishing a job switching system, and expanded the job categories for women by installing a security system that enables them to work midnight shifts.

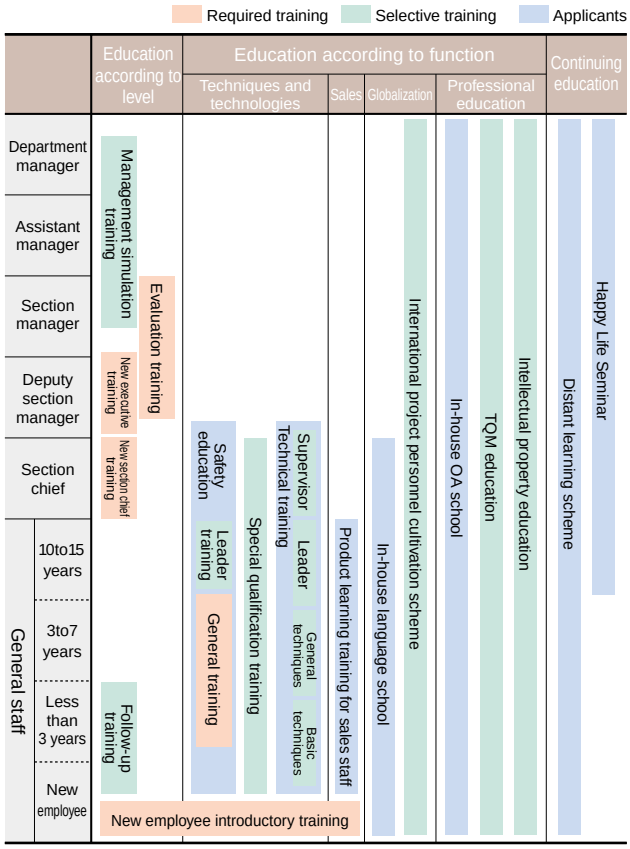


Support to capacity development

We provide level-specific training, function-specific training and continuing education to employees, according to their work content and business environment, so that they can obtain knowledge and techniques and pass them on to future generations.

Practical training of new employees on engines

English class

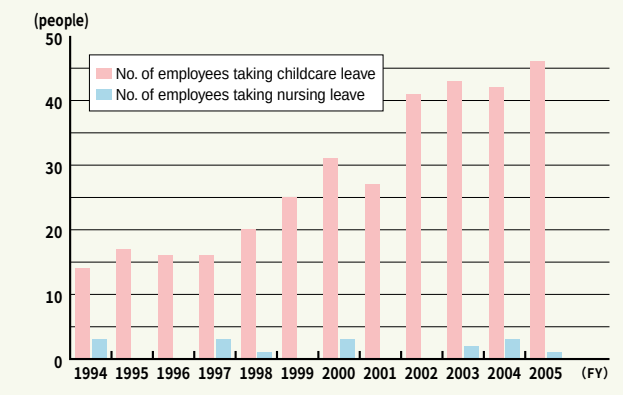


Supporting simultaneous pursuits

To help employees who are raising children and caring for family members, NGK Spark Plug Group is 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
Childcare leave extension scheme	To the age of 2 years (e.g. when no nursery school is available)
Special leave scheme	5 days a year until entrance into elementary school; with no payment (for nursing the child)
Short-time work scheme	To the age of 1 year; to take half an hour for childcare twice a day



Management of work hours

To ensure proper work-time control and prevent excessive work and unpaid overtime, we perform thorough management of work hours using IC cards. We are also developing enlightenment activities by distributing our “Work Hour Management Handbook” to all employees.

Work Hour Management Handbook

Comfortable workplace award

We are promoting a comfortable working environment for employees. The newly constructed office building in the Miyonojo Factory was certified as a “comfortable workplace” by the Kagoshima Labor Bureau in February 2006. We will continue our efforts to meet lofty goals that surpass the standards set by regulations.

New office building of Miyanojo Factory

After mandatory retirement

Re-employment system for ex-employees

In April 2001, NGK Spark Plug Group introduced a system of re-employing retirees of retirement age in order to effectively utilize the knowledge, skills and experience they cultivated throughout their careers. In response to the enforcement of the revised Law concerning the Stabilization of Employment of Older Persons, we will extend the period of re-employment in phases.

Happy Life Seminar

Since 1994 we have held Happy Life Seminars (overnight stay, with spouses) for employees who have reached 50 years old. Through lectures and group discussions, this seminar gives them opportunities to think about their sense of purpose in their second life as well as their health and finances.


Happy Life Seminar

(people)

	FY 2005	Total
Re-employed ex-employees	20	157
Participants in the Happy Life Seminar *	67	947

* Excluding spouses

chapter 7

Occupational safety and health

Philosophy and basic policy

In April 2005, we formulated our occupational safety and health philosophy and policy with the aim of establishing an occupational safety and health management system.

Philosophy

Based on respect for human dignity, we position occupational safety and health as the starting point of our corporate activities.

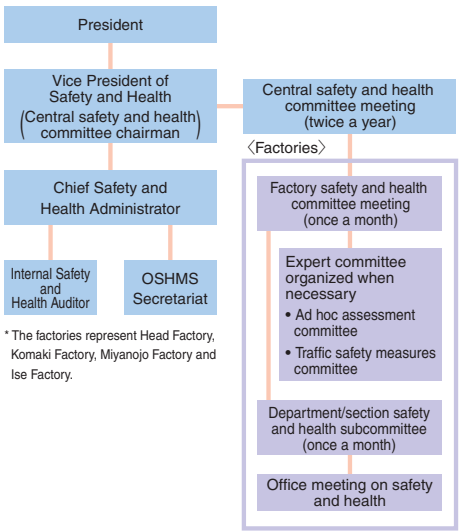
Occupational safety and health policy

- We will comply with the law and our voluntary standards related to occupational safety and health.
- We will reduce risks and eliminate occupational accidents through the continual improvement of our occupational safety and health system and performance.
- We will acquaint all employees with this policy, encourage self-awareness through education and enlightenment, and broadly develop occupational safety and health activities across the organization.

Slogan

Reduce risks and build a physically and mentally healthy work environment!

Safety and health promotion organization



* The factories represent Head Factory, Komaki Factory, Miyanojo Factory and Ise Factory.

Occupational safety and health management system

To eliminate occupational hazards and create a comfortable working environment, we are seeking to establish an occupational safety and health management system (OSHMS).*
OSHMS is a system to continuously improve safety and health activities by rotating the PDCA cycle. While we have implemented risk assessment since FY2004 to prepare for the system, we held a kickoff event again in September 2005 where we pledged to establish a system through labor-management cooperation.

* Certificate of Compliance issued by the Japan Industrial Safety and Health Association (JISHA)

Kickoff event

Targets and results in FY2005

Item		Target	Result
1 Reduction of occupational accidents	1	Zero disabling accident	×
	2	Company-wide total injury frequency rate of 1.0 or less	×
	3	Promotion of safety and health education	○
	4	Promotion of safety and health awareness campaign	○
2 Improvements in healthcare awareness	1	Reduction of employees with abnormal findings in general health checkups	×
	2	Voluntary health checkup rate of 100%	×
	3	Promotion of separation of smoking areas from rest areas	○
	4	Mental healthcare checkup rate of 100%	○
3 Improvements in working environment	1	Reduction of workplaces in the third management category	○
	2	Reduction of workplaces in the second management category	○

Introduction of risk assessment

In an occupational safety and health management system, it is necessary to identify and assess risks and take measures against them. Since the introduction of our new risk assessment in 2005, approximately 20,000 risks in total have been identified in the four factories, 312 of which were significant risks such as the risk of falling. We are taking a series of countermeasures to reduce the risks.

(Example of improvement using the new risk assessment)

To reduce the risk of falling into the discharge tank in the wastewater treatment plant, the safety fence was extended.

Mr. Takayuki Kurata
#1 Production Dept.
Semiconductor Components Division
Communication Media Components Group

Before action

After action

1 Reduction of occupational accidents

1 Zero disabling accident

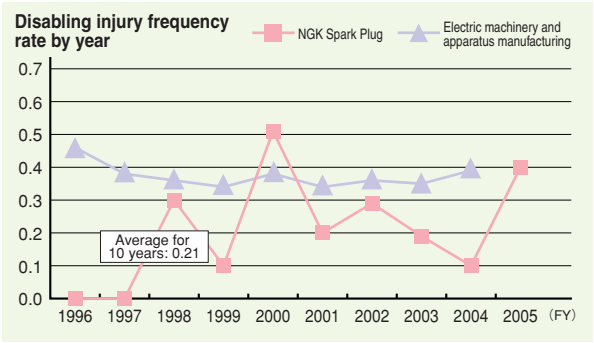
In FY2005, four disabling accidents occurred. When a disabling accident occurs, we try to prevent a recurrence by setting up a special task force composed of safety and health committee members to check the adequacy of the management system and the countermeasures.

Safety education for executives

Inspection by a medical adviser

No. of disabling accidents (No. of accidents)

1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
0	0	3	1	5	2	3	2	1	4



2 Company-wide total injury frequency rate of 1.0 or less

The total frequency rate was 1.61 with 16 accidents in total including minor accidents.

$$\text{Disabling injury frequency rate} = \frac{\text{No. of disabling accidents}}{\text{total work hours}} \times 1 \text{ million}$$

3 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.

4 Promotion of a safety and health awareness campaign

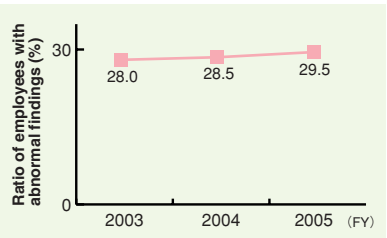
NGK Spark Plug Group gives awards to workplaces that have had no accidents for a certain period of time*. The winning workplaces receive a commemorative gift to celebrate the achievement and to encourage their employees to continue their efforts.

* 18 to 36 months

2 Improvements in healthcare awareness

1 Reduction of employees with abnormal findings in general health checkups

To ensure that all employees maintain physical health, we aim to reduce the number of employees with abnormal findings in general health checkups, although the ratio is actually increasing as our employee age rises.



2 Voluntary health checkup rate of 100%

Employees over a certain age have stomach examinations and fecal blood tests. Our target is checkups for all employees covered by this campaign, but only 80.6% and 75.2% had stomach examinations and fecal blood tests respectively in FY2005.

4 Mental healthcare checkup rate of 100%

To prevent health hazards caused by overwork, we provide employees who work many overtime hours with interviews and advice from medical advisors. All such employees got advice and confirmed that they had no problem with their physical and mental health.

3 Promotion of separation of smoking areas from rest areas

We are promoting separate smoking areas by setting up smoking rooms that do not leak cigarette smoke and outdoor smoking areas. We consider the rights of not only non-smokers but also smokers.

Smoking room

3 Improvements to the working environment

1 Reduction of workplaces in the third management category
2 Reduction of workplaces in the second management category

Workplaces that handle organic solvents and specified chemical substances or generate significant noise implement work environment measurement based on the Occupational Safety and Health Law. Workplaces placed in the third or second management category as a result of the measurement are committed to improving their working environment. In FY2005, the number of workplaces generating large noise was successfully reduced by one each in the third and second categories.

Management category	First	Second	Third
Impact on health	Less		More

Work environment measurement

chapter 8

We will staunchly oppose antisocial movements and organizations that pose a threat to the order and safety of civil society.

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

chapter 9

We will respect local cultures and customs during our international corporate activities and carry out business that contributes to the growth of host countries.

- 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.

Among our overseas offices, Ceramica e Velas de Ignicao NGK do Brasil Ltda has the longest history. The company was established in August 1959 as a full-scale overseas production organization in Mogi, São Paulo. It has long continued to contribute to the industrial development of Brazil as a top plug manufacturer despite harsh economic conditions such as inflation. This long history was appreciated in FY2005 when President Kato received two decorations. We hope that the office continues to maintain good relations with the Brazilian industry as they move forward together.

Panoramic view of Ceramica e Velas de Ignicao NGK do Brasil Ltda

Mogi honorary citizen

Ceramica e Velas de Ignicao NGK do Brasil Ltda was selected as an honorary citizen of Mogi Das Cruzes, the home city of the company.

Rio Blanco Order, Official Title

Decoration conferred by the Brazilian Government on those recognized by the government as having contributed significantly to Brazil in the diplomatic or economic fields. This time's 65 honorees included only one foreigner or private business person.

Bandeirantes Charter

Bandeirantes means "explorer". This was conferred by São Paulo State.

chapter 10

Our top management will lead by example in the spirit of these principles, striving to cultivate a philosophy of logic by disseminating them throughout the company, publicizing them among group companies and customers, and incorporating them into the company structure.

- 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

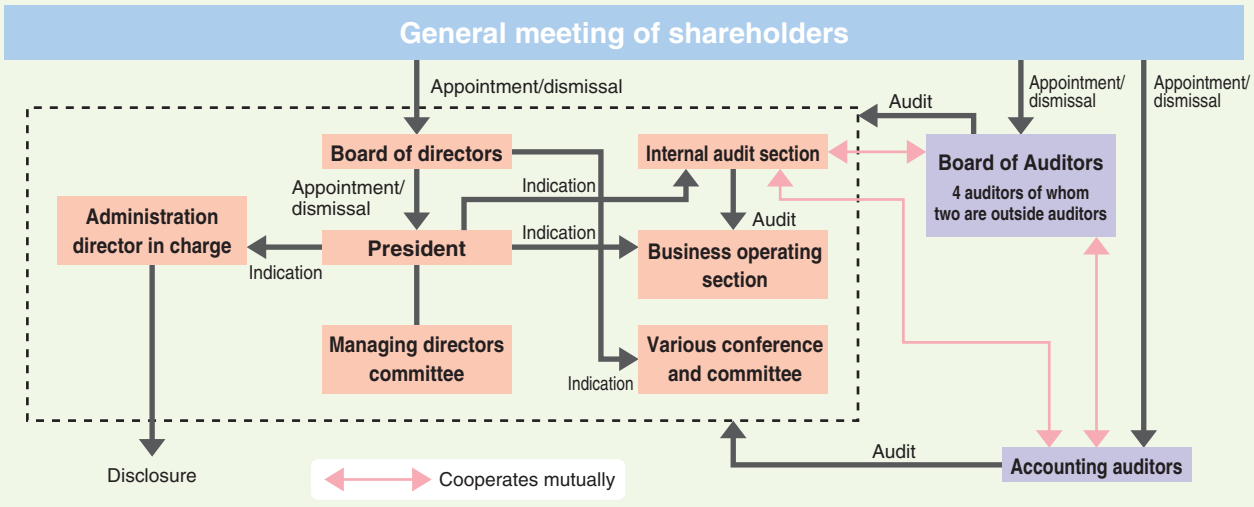
To fulfill our corporate social responsibility, it is a key management task to establish and maintain a fair and efficient management system while ensuring healthy and transparent management. We encourage all directors and employees to properly understand and practice the components of our corporate philosophy, namely "Commitment," "Management Policy" and "Action Guidelines", by providing a "Corporate Code of Conduct" which enhances awareness of legal and ethical compliance.

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"
Feb. 2005	Published "Guidelines on the Handling of Personal Information"

Code of Conduct Guidebook

Corporate governance

Board of directors meetings are held (on a regular and as-needed basis) to discuss and make decisions on items specified by laws and bylaws and other important issues related to management, as well as to supervise the performance of business operations. In addition, a managing directors committee composed of executive directors and higher positions holds a monthly meeting, and we have set up a system to quickly understand situations and address changes in the environment. A board of auditors provides appropriate advice on a timely basis, sometimes from an external viewpoint. Although we have designated no external board members, we believe that the auditors can play a full role in governance. (* as of June 2006)



Messages from stakeholders

Mr. Yoshifumi Tsuruta

Member of "sustainable management rating" assessment committee of Sustainable Management Rating Institute (SMRI)

Part-time lecturer of Faculty of Humanity and Environment, Hosei University

Mizuho Ward, in which NGK Spark Plug is based, features greater harmony between culture, nature and life compared with the rest of Nagoya City, and companies and factories are enjoying the benefits of this good environment and making efforts to protect it. NGK Spark Plug actively promotes the development of environmentally friendly products based on the philosophy of compatibility with the environment, full of the sense of "responsibility as a manufacturer" (CSR) to contribute to society through the manufacturing of parts, the core business of the company. Nevertheless, as it is mainly involved in business-to-business (B-to-B) transactions, its relations with stakeholders other than suppliers, such as local residents, tend to be limited. To address this, NGK Spark Plug has changed the title of its environmental report to "Environmental and Social Report" and categorized its activities according to the relevant stakeholders to make the report easier to understand. This report should be widely used as a communication tool and the sincere posture of the company should be appreciated as a model.

Mr. Seiji Ishida

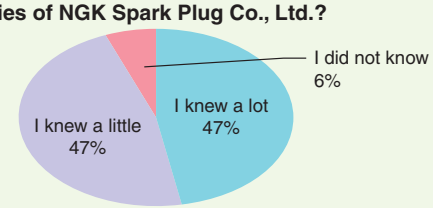
President,
NGK Spark Plug Worker's Union

Among the items to be considered in the evaluation of companies, the most important are "profitability and growth potential", "information disclosure" and "commitment to environmental issues". Among these, a company with no obvious commitment to environmental issues would find it hard to gain social recognition nowadays. This "Environmental and Social Report" clearly explains the activities of NGK Spark Plug Group, and has renewed my awareness of the fact that this company is really contributing to the global environment. As an employee of NGK Spark Plug Group, I will consider what environmental activities I should do and start positive taking action. I also look forward to the future development of NGK Spark Plug Group's unique environmental conservation and social contribution activities.

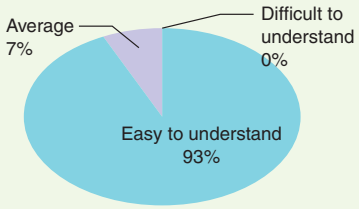
Results of questionnaire in ECO report 2005

Thank you for sending us all your answers to the questionnaire in the ECO report 2005 published in FY 2005. We take your opinions seriously and are working to implement even more thorough information disclosure.

Q1 **Did you know the environmental conservation activities of NGK Spark Plug Co., Ltd.?**



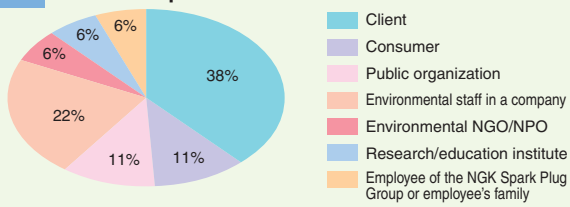
Q2 **How did you find the ECO report 2005?**



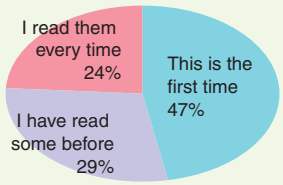
Q3 **What did you find the most impressive or interesting topics? (Top 3 answers)**

- **To be a reliable company**
- **Basic philosophy on the environment**
- **Chapter 1: Management**

Q4 **From what position mainly did you read the ECO report 2005?**



Q5 **Have you read any of the ECO reports we published before?**

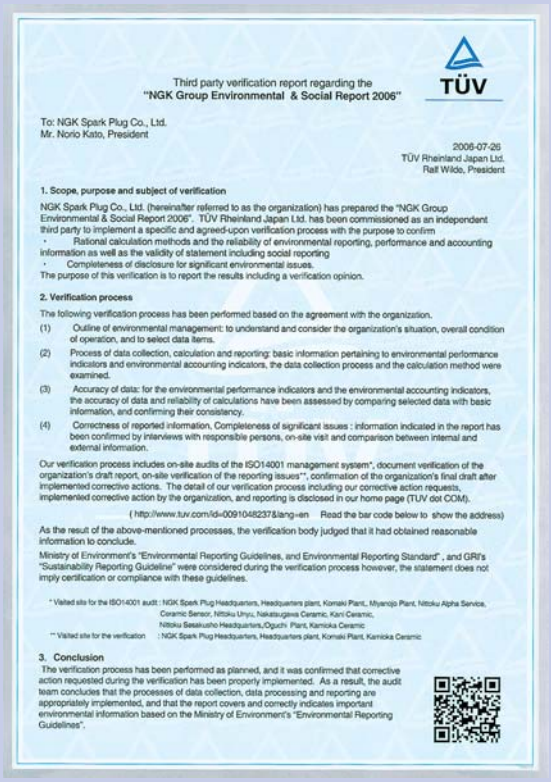


Q6 **Please write down any opinions and/or requests you may have for the NGK Spark Plug Group on its environmental conservation activities.**

- **How about mentioning the reasons for the failure to achieve the targets?**
- **The status of the activities on compliance is not clear.**
- **It is easy to understand the results presented in a numerical format.**

Third party examination

The NGK Spark Plug Group prepares this report based on our policy of conducting information disclosure in an easily understandable manner. Environmental & Social Report 2006 underwent a third party examination by TÜV Rheinland Japan, which also examined last year's report. The examination was made by verifying whether or not important environmental information is comprehensively disclosed, whether or not the disclosed data is accurately measured or calculated, and whether or not the described information is consistent with the supporting materials.



Third party verification report regarding the
"NGK Group Environmental & Social Report 2006"

TÜV

To: NGK Spark Plug Co., Ltd.
Mr. Norio Kato, President

2006-07-26
TÜV Rheinland Japan Ltd.
Ralf Wilde, President

1. Scope, purpose and subject of verification

NGK Spark Plug Co., Ltd. (hereinafter referred to as the organization) has prepared the "NGK Group Environmental & Social Report 2006". TÜV Rheinland Japan Ltd. has been commissioned as an independent third party to implement a specific and agreed-upon verification process with the purpose to confirm

- Rational calculation methods and the reliability of environmental reporting, performance and accounting information as well as the validity of statement including social reporting
- Completeness of disclosure for significant environmental issues.

The purpose of this verification is to report the results including a verification opinion.

2. Verification process

The following verification process has been performed based on the agreement with the organization.

(1) Outline of environmental management: to understand and consider the organization's situation, overall condition of operation, and to select data items.

(2) Process of data collection, calculation and reporting: basic information pertaining to environmental performance indicators and environmental accounting indicators, the data collection process and the calculation method were examined.

(3) Accuracy of data: for the environmental performance indicators and the environmental accounting indicators, the accuracy of data and reliability of calculations have been assessed by comparing selected data with basic information, and confirming their consistency.

(4) Correctness of reported information, Completeness of significant issues : information indicated in the report has been confirmed by interviews with responsible persons, on-site visit and comparison between internal and external information.

Our verification process includes on-site audits of the ISO14001 management system*, document verification of the organization's draft report, on-site verification of the reporting issues**, confirmation of the organization's final draft after implemented corrective actions. The detail of our verification process including our corrective action requests, implemented corrective action by the organization, and reporting is disclosed in our home page (TUV dot COM).

(http://www.tuv.com/id=0091048237&lang=en Read the bar code below to show the address)

As the result of the above-mentioned processes, the verification body judged that it had obtained reasonable information to conclude.

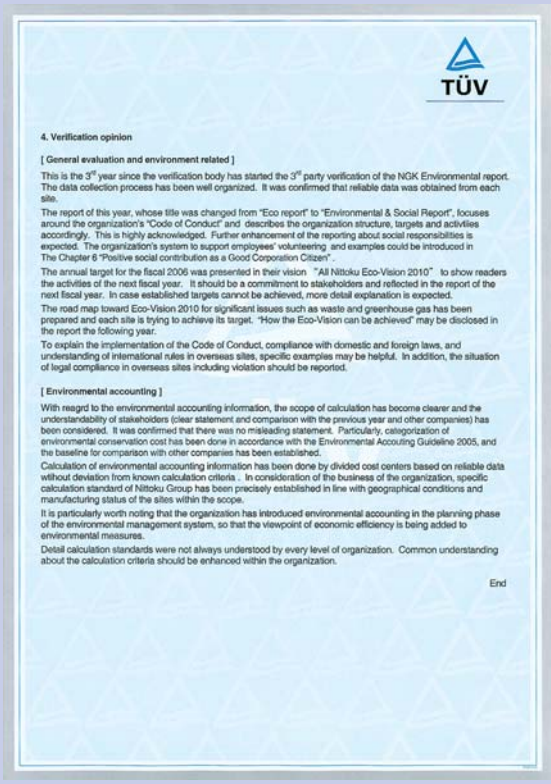
Ministry of Environment's "Environmental Reporting Guidelines, and Environmental Reporting Standard" , and GRI's "Sustainability Reporting Guideline" were considered during the verification process however, the statement does not imply certification or compliance with these guidelines.

* Visited site for the ISO14001 audit : NGK Spark Plug Headquarters, Headquarters plant, Komaki Plant., Miyanojo Plant, Nittoku Alpha Service, Ceramic Sensor, Nittoku Unyu, Nakatsugawa Ceramic, Kani Ceramic, Nittoku Seaikusho Headquarters,Oguchi Plant, Kamioka Ceramic

** Visited site for the verification : NGK Spark Plug Headquarters, Headquarters plant, Komaki Plant, Kamioka Ceramic

3. Conclusion

The verification process has been performed as planned, and it was confirmed that corrective action requested during the verification has been properly implemented. As a result, the audit team concludes that the processes of data collection, data processing and reporting are appropriately implemented, and that the report covers and correctly indicates important environmental information based on the Ministry of Environment's "Environmental Reporting Guidelines".



TÜV

4. Verification opinion

[General evaluation and environment related]

This is the 3rd year since the verification body has started the 3rd party verification of the NGK Environmental report. The data collection process has been well organized. It was confirmed that reliable data was obtained from each site.

The report of this year, whose title was changed from "Eco report" to "Environmental & Social Report", focuses around the organization's "Code of Conduct" and describes the organization structure, targets and activities accordingly. This is highly acknowledged. Further enhancement of the reporting about social responsibilities is expected. The organization's system to support employees' volunteering and examples could be introduced in The Chapter 6 "Positive social contribution as a Good Corporation Citizen" .

The annual target for the fiscal 2006 was presented in their vision "All Nittoku Eco-Vision 2010" to show readers the activities of the next fiscal year. It should be a commitment to stakeholders and reflected in the report of the next fiscal year. In case established targets cannot be achieved, more detail explanation is expected.

The road map toward Eco-Vision 2010 for significant issues such as waste and greenhouse gas has been prepared and each site is trying to achieve its target. "How the Eco-Vision can be achieved" may be disclosed in the report the following year.

To explain the implementation of the Code of Conduct, compliance with domestic and foreign laws, and understanding of international rules in overseas sites, specific examples may be helpful. In addition, the situation of legal compliance in overseas sites including violation should be reported.

[Environmental accounting]

With reagrd to the environmental accounting information, the scope of calculation has become clearer and the understandability of stakeholders (clear statement and comparison with the previous year and other companies) has been considered. It was confirmed that there was no misleading statement. Particularly, categorization of environmental conservation cost has been done in accordance with the Environmental Accouting Guideline 2005, and the baseline for comparison with other companies has been established.

Calculation of environmental accounting information has been done by divided cost centers based on reliable data without deviation from known calculation criteria . In consideration of the business of the organization, specific calculation standard of Nittoku Group has been precisely established in line with geographical conditions and manufacturing status of the sites within the scope.

It is particularly worth noting that the organization has introduced environmental accounting in the planning phase of the environmental management system, so that the viewpoint of economic efficiency is being added to environmental measures.

Detail calculation standards were not always understood by every level of organization. Common understanding about the calculation criteria should be enhanced within the organization.

End

Undergoing a third party examination

We have edited this report based on our corporate code of conduct. Although we were concerned over this significant change from our previous reports, we have received opinions saying that it is easier to understand. Meanwhile, the enhancement of social aspects and the presentation of specific cases, including those in other countries, have been identified as future challenges. As an "Environmental and Social Report", it is still a "work in progress". We recognize the issues as people's expectations of us, and will do our best to resolve them.
We have corrected any textual errors and insufficient explanations identified during the examination. We will continue to steadily improve those parts where immediate improvement was not possible due to the inadequacies of our system.

Editorial meeting

Third party examination

Request to answer the questionnaire

Thank you for reading through our Environmental and Social Report 2006. For the further improvement of this report, we kindly ask you to fill in the questionnaire.

Please return the completed questionnaire to us by fax or e-mail. ⇒ **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.

NGK Spark Plug Group

Environmental & Social Report 2006

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